TITLE: AN INVESTIGATATION OF FACTORS RESPONSIBLE FOR THE DROPOUT RATES AT GERT SIBANDE FET COLLEGE

by

TEBOGO PERCIANS PORTIA MASEMOLA

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Supervisor: Prof BR Grobler

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ABSTRACT

The study investigated the factors that are responsible for student dropout rates at Gert Sibande FET College. A random sampling method was used to select participants for this study. A quantitative approach was used in this study. Accordingly, data were collected using a questionnaire designed in a Likert scale format. The study was limited to students at Gert Sibande FET College's two campuses, namely, Evander and Sibanesetfu. Subsequently, the findings revealed that socio-economic factors, institutional policies and funding strongly explain the prevalent dropout rates at these two campuses. It is recommended that, adoption of student centred funding model, cultivation of relationships between lecturers and students as well as restructuring learning schedules be factored in during policy development. The findings confirmed that these recommendations would help reverse continuous dropouts currently experienced at Gert Sibande FET College.

Title of thesis: an investigation of factors responsible for dropout rates at Gert Sibande FET College.

Key terms

- College dropouts, student individual-related; family socio-economic status related factors; institutional related factors, facilities-related factors; student financial-related factors; lectures-related factors; Management-related factors; programme related factors; test and exams-related factors;

Student number: 50499378

I declare that <u>*an investigation of factors responsible for the dropout rates at Gert Sibande FET College is my own work and that all sources I have used or quoted have been indicated and acknowledged by means of complete references.</u>

_____   _____

SIGNATURE   Date

(Ms TPP Masemola)   04 February 2014

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

The problem of college dropouts is what college administrators, parents and policy makers have had to deal with for the past several decades across the globe. While the rates of college and high school dropouts vary from country to country and from province to province, it is still a problem that needs to be addressed by not only college administrators and parents but also by the policy makers. Currently, there are fifty Public Further Education Training (FET) Colleges in South Africa which are spread across urban, semi-urban and deep rural parts of South Africa with approximately 300 Campuses.

FET Colleges operates under the FET Act of 2006 (SA, 2006) and under the shadow of Department of Higher Education and Training. The purpose of the FET Colleges is to bridge the skills gap that exists in the South African industry, by offering training programmes to the youth that are relevant to industry needs. The Department of Higher Education and Training (DHET) offers funding to pay salaries, sustain Public FET Colleges and subsidize students that enrol in the Colleges. Moreover, the DHET offers funding through bursaries to students with the purpose to improve access, certification and retention rates in FET Colleges.

1.2 Context of the study

FET Colleges were merged and converted in 2003 and they were previously known as Technical Colleges (SA, 2006). Technical Colleges in a Region were amalgamated to form one or more FET College(s) with the Council and Chief Executive Officer appointed as the Principal of each of the FET College. Colleges have a number of Campuses under the leadership of Campus Managers, Head of Department and Education Specialists. In Mpumalanga Province we have three FET Colleges named after the three regions thus Nkangala FET College, Ehlanzeni FET College and Gert Sibande FET College.

Gert Sibande FET College consists of four Campuses spread across Gert Sibande Region. Government allocated R1.9 billion for the recapitalization of FET Colleges in South Africa. The purpose of this funding was to equip and increase the capacity of FET Colleges to be able to deliver service as anticipated. The funding was also used for the FET staff development and purchasing of learning and teaching material (Education and Labour Relation Council, 2007:3). Prior to the amalgamation of technical colleges, no financial aid was available to students. Students were liable for their class fees and textbooks.

The introduction of the National Student Funding Aid Scheme (NSFAS) changed the face of FET Colleges across the country and improved access to education, especially to the previously disadvantaged communities. The Financial Aid Scheme was accompanied by the new programmes called the National Certificate Vocation (NVC) Programmes. NC (V) programmes are a three year training intervention that gives learners from grade 9 an alternative career pathway to matriculation. The NC (V) qualification is at National Qualification Framework (NQF) Level 4 with a total of 21 subjects. These programmes were designed to give learners both theory and practice in a simulated work environment, or placed in a real workplace for experiential learning for a given period of time (Education and Labour Relation Council, 2007:8).

Students are also expected to do three fundamentals which are English, Life Orientation, Mathematics or Mathematical Literacy. The Mandate of the FET Colleges was and still is to close the skills gap that exist in the country and as such the government has invested colossal amounts of money to sustain Public FET Colleges. Despite all the government funding commitments, worth noting is that the escalating college dropout rates in South Africa in general and Gert Sibande College in particular have grown to become a serious academic crisis.

Figure 1 below depicts the total numbers of student dropouts for each of the four campuses of Gert Sibande for a period spanning four years. Notably, Standerton and Ermelo campuses experienced the largest dropout figures for the period examined as compared to their sister campuses. Most dropouts have been cited emanating from engineering departments as compared to other departments. According to Gert Sibande Registration Department, the Engineering

Departments of the FET's four campuses have contributed an average of approximately 60% of the total dropout rates in each period examined. Worryingly, the dropout numbers have been escalating and as such qualify these two campuses (Standerton and Ermelo) and specifically their Engineering Departments for investigation in this study. Importantly, this phenomenon warrants closer examination especially from Gert Sibande College academic administrators and education specialists.

FIGURE 1: GERT SIBANDE STUDENT DROPOUTS

GERT SIBANDE STUDENT DROPOUT NUMBERS PER CAMPUS

2009 2010 2011 2012

ERMELO: 96, 74, 84, 79
EVANDER: 152, 177, 97, 90
STANDERTON: 74, 91, 55, 124
SIBANESETFU: 152, 177, 97, 91
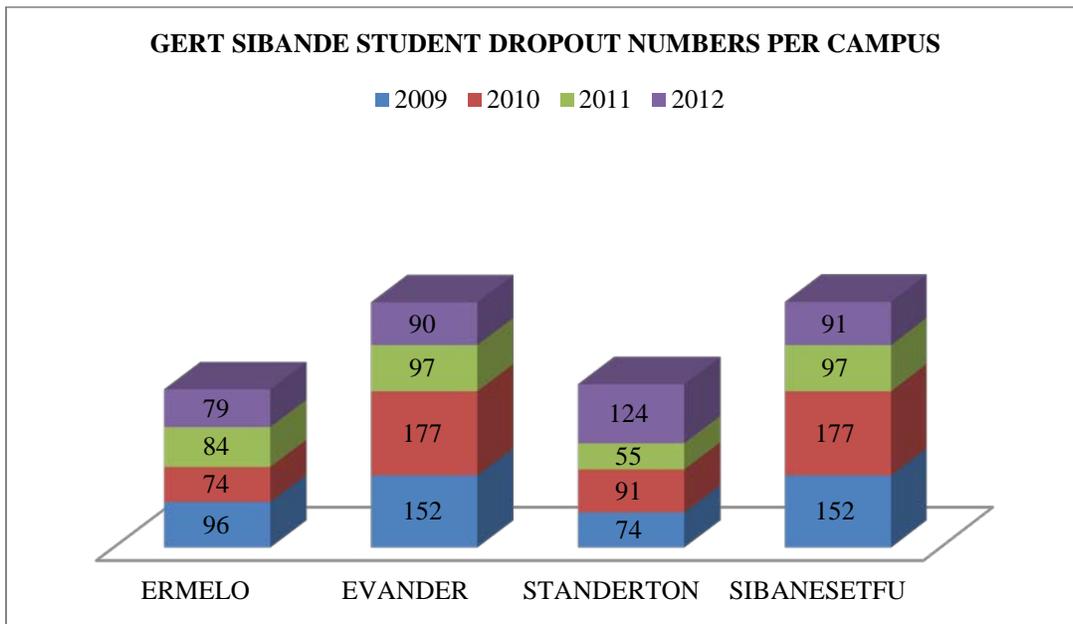
Source: Gert Sibande Student Registration Department Database

For the years 2009, 2010, 2011 and 2012, the highest dropouts were recorded for Evander and Sibanesetfu (each with 152 dropouts in 2009), Evander and Sibanesetfu (177 dropouts recorded at each campus in 2010), Evander and Sibanesetfu (97 dropouts recorded at each campus in 2011) and Standerton (with 124 dropouts in 2012) respectively.

FIGURE 2: GERT SIBANDE STUDENT DROPOUTS RATES
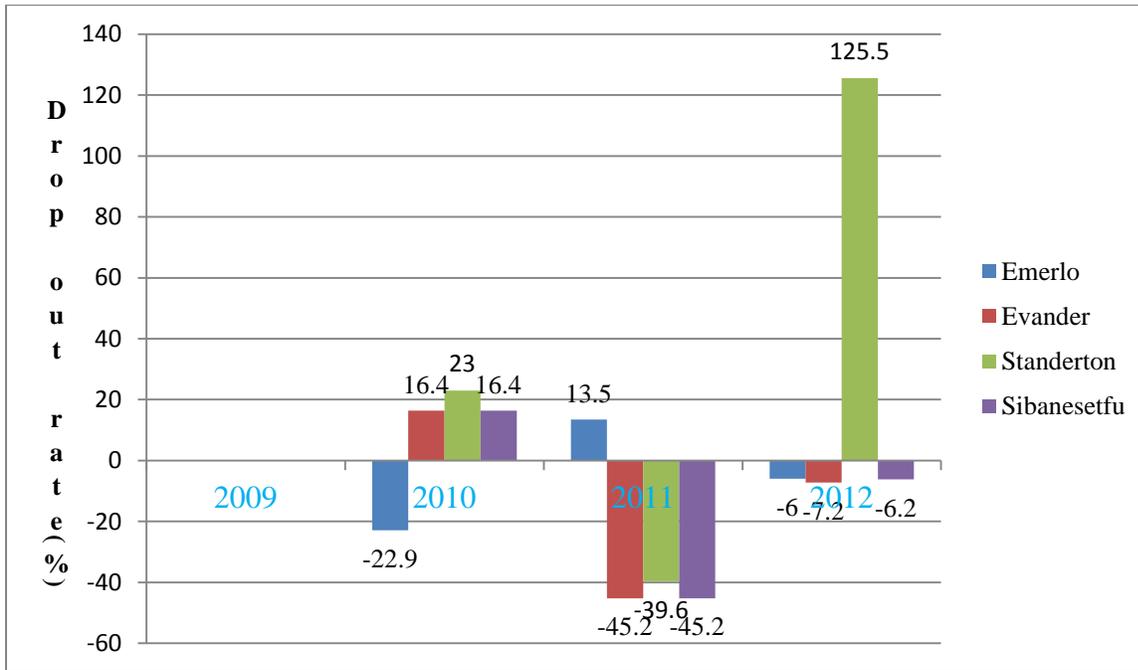
Source: Gert Sibande Student Registration Department Database

Between the years 2009 and 2010, Standerton campus posted the highest dropout rate of 23%; and between 2010 and 2011, Ermelo recorded the highest dropout rate of 13.5% and between 2011 and 2012, Standerton recorded a 125.5% dropout.

1.3. Problem Statement

According to Booyse (2003:24), problem statement formulation in qualitative research commences with the simultaneous selection of a general theme and a methodology. Next, the general theme is narrowed down to a more specific theme and the problem is only finally formulated after considerable initial data gathering and analysis have occurred. Inductive reasoning leads to a gradually emerging research design and to the problem being formulated in the course of the investigation. In addition, Hanekorn (2001:67) states that the problem should be proposed concisely, clearly and precisely. It can be put as a question or presented as a statement. The main idea is to clearly demarcate the problem so that any person who reads the statement or question will be able to understand it without the act of explanation. Inherent to this study, the research problem of the study can be framed in the following context: Which factors are responsible for the high dropout rate of students at the Gert Sibande FET Colleges?

In order to answer this main problem the following questions need to be addressed.

    i)   What are the major factors driving student dropouts at Gert Sibande FET College?

    ii)   What are the levels of association between dropouts and each respective major factor driving dropouts at Gert Sibande FET College?

    iii)   What strategies can be implemented to curb dropout rates?

Answers to the research questions above will to some extent highlight the current state of success of the South African Government in general and student retention policy in particular and provide pointers to the future.

1.4. Research Objectives

The principal objective of the research is to investigate the spiral of dropouts within the Gert Sibande FET College located in Mpumalanga. To this end, the three fold sub-objectives of the study are pursued and these are enlisted as follows:

- To explore the literature in an effort to determine factors influencing student dropout from FET Colleges;

- To measure the perceptions of students and administrative personnel regarding the extent that the identified factors are responsible for the high dropout rates of Gert Sibande FET College students; and

- To provide recommendations that could reduce the high dropout rate prevalent at the Gert Sibande FET College.

1.5 Significance of the Study

Apart from contributing to the scant existing body of literature for South Africa on causes and effects of college dropouts from the Gert FET Colleges' perspective, this research will contribute to a comprehensive understanding of the characteristics of the problem from a theoretical and conceptual framework surrounding college dropouts. Additionally, the need for close examination of the issue of high college dropouts is also based on the researcher's perspective that college students are an important segment of society. However, the illegal activities that many students are engaged in such as drinking, smoking and robberies due to their inability to

attend and graduate from colleges tend to affect other segments of the society or the whole society. For instance, a study conducted by Randell and Fish (2008:12) shows that students who drop out from colleges and schools are more likely than other students, who graduate from colleges and schools, to experience health problems, get involved in criminal activities, and become dependent on welfare and other government programmes.

The study will ultimately recommend policy road maps for crafting appropriate responses to various causes and effects of premature programme cancellation by students. In the same vein, this research will help policy makers to take an appropriate course of action to create a desirable educational environment for students at the Gert Sibande FET colleges. These policy guidelines can also be incorporated in the curricula of various institutions that deal with the field of Public Management. It can also be used by the government institutions that are responsible for capacity building like the South African Management Development Institute (SAMDI). Lastly, this research will unveil novel avenues for further research.

1.7 RESEARCH METHODOLOGY

The study has employed a quantitative research approach to explore and analyse the key drivers of college drop outs at Standerton and Ermelo campuses from 2009 to 2012. A structured questionnaire was used to collect primary data on the factors driving college dropouts. The respondents selected for this study were mainly students as well as registration department personnel. The sample size used was set at 325 (n = 325) respondents inclusive of both students and registration department personnel; selected from the population of 1 500 (N = 1 500). The determined sample of the respondents represents a reasonable size with a balanced mix of demographic factors; namely age, gender, education levels, employment status and income levels. The questionnaire was self-administered by the researcher.

A 5-point interval Likert scale was used to measure the respondents' perception on the major factors driving college dropouts at the respective campuses under study. The Likert scale examines how strongly respondents agree or disagree ranging from 5-respresenting strongly agree to 1-strongly disagree with statements that measure variables in the hypotheses of the study. Finally, reliability and validity tests of the measures from the questionnaire were

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conducted to explore hidden dimensions of collected data prior to investigating statistically significant major factors driving college dropouts.

Stepwise regression and ANOVA test techniques were applied to test for association of perceptions of respondents of various factors that are responsible for high dropout from FET colleges. These factors were determined via factor analytic procedures using SPSS 21. The independent variables came from the various biographic and demographic variables as formulated in the questionnaire. Depending on the normality of the data, appropriate statistical techniques were used to investigate possible associations between the dependent and independent variables. The raw data were first factor analysed to summarise the sixteen variables into smaller sets of linear composites that preserve most of the information in the original data set. The data were subjected to Principal Component Analysis (PCA) to reduce components through varimax rotation. Tests based on Cronbach's alpha were conducted for all factors which were used for the study.

1.8 Organisation of the Study

Chapter 1: Introduction
This chapter presents the background to the study, the research problem, the aim, the objectives, the research questions, and the significance of the study and the research methodology to be used in the study.

Chapter 2: Literature Review
This chapter focuses on the previous research done on the various causes of school and college dropouts, and the repercussions of such dropouts.

Chapter 3: Research Methodology
This chapter focuses on the methodology that was used to collect data. The chapter also discusses the research approach and the data collection method applied and analytical framework employed. The pilot study and random sampling shall also be explained.

Chapter 4: Presentation of Data

This chapter focuses on the presentation of data and the discussion of the findings. Data collected by means of the questionnaires are presented in the form of descriptive statistics and through the use of charts. The findings are then linked to the findings of the literature review.

Chapter 5: Conclusions and Recommendations

This chapter provides the conclusions of the study and makes cautious recommendations for reversing the wheels of college dropouts and its effects.

1.9. Conclusion

This chapter focused on the introductory framework of the study. Much attention was given to the background to the study, the study objectives, the aims and the research questions. As student dropouts are a major challenge at the Gert Sibande FET College, this study sought to investigate the factors responsible for escalating college dropouts and provide tentative recommendations to these problems. The next chapter reviews the literature related to the study, including literature that relates to previous studies conducted on both drivers of and intervention strategies to curbing college dropouts.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The review of literature on factors influencing college students' dropouts under this Chapter is organized under four major categories of research studies. Firstly, the factors that influence student dropout decisions are investigated. Secondly, research pertaining to findings regarding issues of student engagement and motivation is reviewed followed by a review of the programmes that have been implemented and successfully followed in similar studies. Lastly, a detailed summary of discussion on the above issues follows.

2.2 Factors that influence students to drop out of further education training (FET) colleges

A review of research studies conducted in the field of dropout prevention yielded a complex array of findings. Both quantitative and qualitative studies reinforced the need for individual assessment and targeted intervention. While practical strategies and multidimensional approaches to prevent dropouts have resulted from the numerous studies on the subject, the complexity of the problem demands ongoing investigation.

The following review addresses dropout research and methodologies that have been successful in shedding light on the topic. The research team of Wells, Bechard and Hambly (1989:15) categorized factors that influence dropout decisions into the following four broad categories: school-related, student-related, community-related and family-related. Wells et al. (1989:17) found that a combination of these factors greatly increased the likelihood of student dropout. This framework was the lens through which the research on dropout rates in this section was viewed. The four factors are generally summarized as follows:

1. Student-related factors are qualities students possess independent of demographics such as drug abuse, trouble with the law, and pregnancy.
2. School-related factors are those in the control of the school or school district.

3. Family-related factors include socio-economic status, parental support, or whether one or both parents live in the home.

4. Community-related factors include societal pressure, the impact of poverty, as well as environmental influences.

Each of these areas was addressed by investigating the research connected with each factor.

2.2.1 Student-related factors

Student-related factors are defined as those the student engages in outside of the school setting. Most often they are associated with negative student behaviours such as drug abuse or violent actions. Research has found a direct correlation between student behaviours and an increase in the dropout rates. Studies point to early childhood development and aggressive behaviour as the strongest determinant of dropping out of high school. In a longitudinal study following 248 girls and 227 boys from 7th grade until 12^{th}grade, Ekstrom, Goertz, Pollack and Rock (1998:86) examined behavioural, cognitive and demographic factors relating to dropping out of high school in United States of America (USA). They found that students who dropped out were earlier noted to have exhibited high levels of aggressiveness and lower academic performance.

A study by Brindis and Philleben (1998:54) noted three distinct indicators of dropouts. The researchers stated that students who "associated" with other dropouts had a higher incidence of dropping out. Others noted factors included low socio-economic status and early parenthood. These three factors point to the negative cultural influences of peer groups and poverty. While early parenthood is present as a common factor in all socio-economic levels, it is also linked to early dropouts. For example, from the longitudinal research study conducted by Cairns, Cairns, and Neckerman (1999:76), they found significant relationships between behavioural, cognitive, and demographic factors and early school dropout. They assessed a sample of 248 female students' and247 male students and monitored them from seventh grade to either school dropout or completion. Interviews were conducted individually to assess the 14% who had dropped out prior to 11^{th}grade.

Results of these interviews found that 82% of the male students and 4% of the female students had high levels of aggressiveness coupled with poor academic performance in seventh grade; hence they dropped out. Rumberger and Larson (1998:65) conducted a hierarchical regression analysis to examine indicators of dropout. They found multiple factors of dropout could emanate from a single predictive trait such as low socio-economic status or gender. When combined, they increased the likelihood of the indicators' predictive value. For example, high socio-economic status and high student performance were indicators of high future income. They also found few indicators that crossed all domains. Indicators they did find, which were linked to the domains studied, included parental involvement and academic achievement by age.

2.2.2 School-related factors

Wells et al. (2001:34) define school-related factors as structures and activities within the school day that may contribute to or fail to deter disengaging behaviours. These factors constitute actions that occur during the school day and are related to interaction with the school system. Chronic absenteeism, tardiness to class, and other disciplinary problems are considered school-related factors. Retention and poor academic achievement are also factors that have been studied to determine a correlation with dropout issues. Research by Wells et al. (2001:54) on the early warning signs of dropping out indicates that the over-age student is at great risk of dropping out across all three grade levels-elementary, middle and high school.

One of the earliest longitudinal studies on academic success and behaviour while in school and the corollary effect on dropping out was conducted by Roderick (2003:98). Roderick analyzed a cohort of students in Fall River, Massachusetts. She looked at three dropout factors for students starting from the 4th grade through high school graduation. The study provided insight in determining causality of factors in dropping out of school. Roderick looked at the three areas including academic performance, student engagement and social background. The school directly influenced two of the factors. Her analysis compared dropouts with non-dropouts. She used event history analysis to look at academic records including grades and attendance as measurements for engagement and performance. She discovered that the data were skewed by two subgroups. The average 4th grade academic performance was pulled down by the lowest third that eventually dropped out prior to entering 10th grade.

Secondly, she found the mean was raised by a subgroup of high performers who would graduate at the top of their high school class. Additionally, Roderick (1993:132) also found a pattern showing two distinct types of dropouts: the early dropouts who dropped out between 7th and 11th grades, and the later dropouts who dropped out between 10th and 12th grades. She found these two groups had very different educational careers. The early dropouts showed lower performance as early as 4th grade. The later dropouts had similar performance in the 4th grade and showed great declines in the transition years into middle and high school. During the transition to middle school, Roderick (2003:31) found that academic performance dropped for nearly all students. She determined that those who fell behind in the transitions experienced a greater dip in performance and never recovered.

Students have been found to not only be at risk when they transition to a new grade level but also when they retained at any grade. Retaining students at any point in their learning path increased the likelihood of dropping out of high school regardless of the reason for the retention. Alexander and Entwisle (2001:190) found that the highest predicting factor of dropout was if a student had repeated a grade in elementary or middle school. This has implications for policy on retention and could inform both school boards and school leaders when making these critical decisions.

Structures and systems that comprise a school's design (administration, staffing, budgets, resources, schedules, curriculum, instruction, and assessments), how they support or deter struggling students, and how they serve at-risk subgroups, are also predictive of dropout rates. Absenteeism repeatedly leads the list of predictors of dropout behaviours (Allensworth & Easton, 2007:154). Bryk and Thum (2009:323) studied how a school's organizational structure affects dropout behaviours. They used linear analysis to investigate what leads to absenteeism, and found structures with clear norms in place held the most promise for students at risk of absenteeism and as a corollary dropout rate. Allensworth and Easton (2007:256) found that attendance was a strong predictor of success in high school. The number of absences a student accumulates is a tool to obtain measurement and one proven to be a strong indicator of high school success.

Allensworth and Easton (2007:431) further found that absence rates were particularly significant in transition years from elementary to middle school and middle to high school. Absenteeism was also seen as a primary indicator to measure student engagement. Other researchers found correlating behaviours including truancy, coming to school unprepared, and not completing homework to be indications of academic disengagement (Bonikowske, 2007:98).

Cairns et al. (1989) also addressed the issue of absenteeism. They found that schools defined as heterogeneous and highly normative were deemed the most supportive for keeping students on track. They noted that schools where subgroups felt disenfranchised and did not have a clearly defined normative school culture had a higher frequency of absenteeism. Structures that had clearly defined normative cultures were more likely to have fewer absences. A climate characterized by "safety and orderliness in a location that is accessible and non-threatening can make a powerful contribution to dropout prevention" (Bonikowske, 2007: 75).

Additional effects of school structure on the dropout rate have been studied. Schools within small learning communities have been found to have a positive influence on counteracting the dropout rate, particularly at large high schools (Baker & Sansone, 1999:212). Preliminary results are mixed as some schools are succeeding and others have shown moderate or no change (Gates, 2008:231).

A school's vision and interaction with students plays a significant role in curbing the dropout rate. Fine (1998) conducted an ethnographic case study of dropout in an urban school. She described a culture where student-teacher interactions, school discipline procedures, curricula, and district policy contributed to a 40% dropout rate. In addition, Fine (1998:413) found that this large urban campus would transfer unsuccessful students to alternative schools. Teachers were asked to select students they felt were at risk of dropping out. Unstructured interviews with students, counsellors, teachers, and administrators were recorded and transcribed. She found that the site did not have a dropout prevention plan, and the graduation rate was secondary to the site's goals of increasing academic standards and student achievement. The principal stated that her goal was to develop a mastery approach to the standards within the courses. Students indicated that teachers who helped them persevere shared a common characteristic. These

teachers sought to understand students' views and counteract their feelings of powerlessness. Determining the focus of a school is usually the decision of the principal and district leadership. District leadership can also play an important role in the development of learning strategies that support the goal of preventing dropouts. School leaders shoulder significant responsibility and accountability in reversing the dropout rate. Therefore, school boards, superintendents, central office administrators, and school administrators must engage in collaborative partnerships and strive for a cohesive improvement agenda to counteract student dropout.

Purposeful district-level support in providing school leaders with research-based training, technical support, and ongoing student data to guide instruction, and adequate resources is crucial to monitoring intervention efforts. School leaders need encouragement and political support from their school board so they can implement innovative organizational structures, school schedules, and partnerships with employers and post-secondary institutions. Educational leaders at all levels struggle to put into effect proactive measures that have the greatest impact on averting dropouts and increasing the number of students who graduate prepared for post-secondary education and careers.

The situation sketched above is a global problem but in the South African context it is even more acute. According to Dwane (2013:32), the chairperson of Equal Education, one-third of learners who enrol in Grade 1 do not reach G12 (Essop, 2013:8). The DoE (2005:9) discovered that 36 000 or (30%) of the total cohort of 120 000 first-time entering undergraduates in universities and technicons dropped out at the end of the year of their first year of studies, and that a further 24 000 dropped out after either two or three years of their study. The total of the cohort, which had dropped out by the 2003 academic year was therefore 60 000 or (50%) only 26 500 or (22%) of the total cohort had graduated by the end of their third or fourth year of study. The remaining 33 500 were studying in 2003 but did not complete their qualifications in that year. These statistics from the South African FET and higher education institutions provides a strong case that college dropout is a major issue confronting South African higher education.

Bottoms and Fry (2009:512) concluded that school districts must improve working conditions and support for high school principals or will continue to be plagued by troubling dropout rates

and high school graduates who are ill-prepared for college-level work. After interviewing principals of high- and low-performing schools, the report found that relationships between central office leaders and high school principals could increase or reduce the principal's capacity to effectively lead a school to higher levels of achievement. The report also found that principals at the most-improved high schools felt they had a collaborative working relationship with the district; the district seemed to have lost unilateral control over decisions about school improvement. Conversely, principals at the least-improved high schools experienced that most reform initiatives were centralized in the district office; they were constricted by tight district control.

Successful school districts provide school leaders with proven reform strategies such as new ways of using school time and organizing staff so teachers can collaborate on instructional issues, additional teachers and personnel with expertise in instruction, a range of extra-help strategies for students, and an adequate supply of up-to-date materials.

The above indicators reveal that understanding the problem of dropouts must include an analysis of the school's role in the problem as well as examining student characteristics. Educating the future generations requires an understanding of their learning preferences. Students in this generation were born in or after 1982 and live in a technological, speed-dominated, instant-gratification environment. For the most part, they are visual and kinaesthetic and prefer working in teams or peer-to-peer utilizing curriculum that is interactive and relevant (Oblinger, 2005).

2.2.3 Family-related factors

The family environment can encompass qualities such as family composition, poverty levels, and substance abuse at home. Wells et al. (2001:26) found that family factors contributed to the likelihood of dropping out or remaining in school. Family factors can include parental support, unwanted or unexpected parenthood, or other factors related to the home life of a student. Students cited parental support as a factor that helped them stay in school (Wells et al., 2001:27). Lack of parental involvement in an abusive home was connected with a higher incidence of dropping out (Wells et al., 2001:65). Factors such as living in a violent or dysfunctional home environment, a home where drug or alcohol abuse was prevalent, single-parent households, a

language other than the language used at school, and lack of education of the parents are linked to student dropout (Wells et al., 2001:142).

Rumberger (2003) found that single-parent homes and large families resulted in the students having less time with an adult and fewer resources available to support them in their schoolwork. He also found a connection between the level of education completed by the parents and the likelihood of dropping out. Parents who dropped out were more likely to have a child who also dropped out. Ginsberg and Miller-Cribbs (2000:231) found that having a language spoken in the home other than the primary language of the school was connected to a higher rate of dropout. Ginsberg and Miller-Cribbs also found that students who live in a home with drug or alcohol abuse are more likely to drop out. These factors are also connected to parents with criminal records or who are incarcerated (Metzer, 1997:41).

Family stability was a factor found to positively influence and support students on their way toward graduation. Rumberger and Larson (1998:76) used data from a sample of 1 500 students in a California longitudinal study. They identified a set of predictors of high school completion, future employment, future income and adult crime. They analyzed data on individual students, demographics, family information, and school experiences from birth to either high school completion or dropout. Their research included an analysis of test scores comparing non-mobile and highly mobile students. They found that students who moved frequently suffered psychologically, socially, and academically and those students who changed high schools, even once, were twice as likely to dropout.

Support from home affects many other arenas. Rumberger (2003:76) studied a large sample of 14,249 students to determine whether participation in specific extracurricular activities such as athletics and fine arts significantly reduced a student's likelihood of dropping out. He found that, when all activities were examined, only athletic participation remained significantly related to dropping out. Mahoney (1997:12) examined the role extracurricular activities played in student engagement and dropout prevention. Using longitudinal assessments, Mahoney (1997:12) analyzed interviews of a cohort of 392 students from 7th to 12th grade. The study consisted of 206 female students and 186 male students. A cluster analysis based on interpersonal competence

scale ratings from their middle school teachers identified clusters of social competence in the cohort. Additionally, Mahoney (1997:14) analyzed school dropouts and defined them as students who failed to complete 11[th]grade. He then looked for a causal relationship to those who participated in extracurricular activities within the school.

Mahoney (1997:17) found that students who had a low interpersonal competence score, combined with a lack of participation in extracurricular school-related activity, had a higher incidence of dropping out of school prior to 11[th]grade. Carpenter and Ramirez (2007:51) investigated other home support issues. They found that common predictors of dropout shared within the student subgroup included gender, time doing homework, and family composition. In addition, males from single-family households were found more likely to drop out than others within the subgroups. They also found that achievement gaps within ethnicities seemed more profound than gaps across ethnicities. They emphasized the need for school leaders to look for predictors and to weigh the complexity of each situation individually. They also cautioned against looking at factors that merely identify students, rather than understanding their individual needs in an effort to better understand the dropout problem.

2.2.4 Community-related factors

Wells et al. (2001:71) found that community factors played a role in whether students dropped out or not. They define community-related factors as those that are supported by the current environment or the community supports the student may have available. Poverty is a community-related factor that has a strong correlation with the likelihood of dropping out (Wells et al., 2001:45). Poverty is often connected with activities that compete with time spent in school. For example, students who work more than 20 hours a week have been found to have a higher likelihood of dropping out. Davalos, Chavez, and Guardiola (1999:512) found that minority students are more likely to possess qualities that provide the greatest correlation with dropping out. These include a higher incidence of poverty, a lower incidence of academic success, and a greater likelihood to live in urban communities. Supporting this research, Ginsberg and Miller-Cribbs (2000:65) found that communities in the southern and south-western part of the United States, as well as urban areas, produced more dropouts.

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Many community efforts and state initiatives to support at-risk youth and to study factors leading to dropout have supported the educational system in making a difference in the dropout epidemic. Steinberg and Almeida (2008:21), describe six factors that focus on the best practices of schools that beat the odds in rescuing dropouts and engaging unsuccessful high school students. The first recommendation of the review was to focus on the transition to high school. The 11th grade is often considered a critical make-it or break-it year when students get on or off track to succeed in high school. More students fail 11th grade than any other grade in high school, and a disproportionate number of students who are held back in 11th grade subsequently drop out (Herlihy, 2007:51). Secondly, districts that beat the odds have early warning systems to identify students who have exhibited early behaviours that correlate with dropping out. As a result, campuses are also able to connect students and families with community agencies that can extend the support past the schoolhouse.

Hence, understanding the complexity of the dropout crisis must include an analysis of the community's role in the problem, as well as looking at student and school characteristics. Attention should be given to the interplay of the dropout factors and the support services a community can provide. An isolated look at schools or community structures will not fully address this multifaceted issue. Educators must also examine the motivations behind student success in order to increase the likelihood of graduation.

2.3 Motivation theory

Theorists in the field of psychology have studied the subject of motivation in order to understand human behaviour, encourage positive behaviour, and diminish negative behaviours. Educational psychology has identified two basic classifications of motivation; namely intrinsic and extrinsic. Intrinsic motivation is a desire to learn a subject for its inherent interest, self-fulfilment, and to master it. Extrinsic motivation is motivation to perform and succeed for a specific outcome or incentive. Educators seeking to improve student conditions and performance have sought answers in the field of psychology specifically in the field of student engagement and student motivation (Glasser, 1998:54).

Understanding how to motivate potential dropouts is assisted with a review of human motivation theory. One of the most difficult challenges is to motivate students who are not intrinsically motivated to learn. In the educational setting, the lack of motivation to learn has been central to arguments that support external rewards. Hidi and Harackiewicz (2000:76) argue that extrinsic rewards may have a special relevance from the perspective of the academically unmotivated. As these students do not typically find their academic tasks interesting, a combination of carefully administered external rewards and situationally interesting activities may be one of the most realistic approaches to educational intervention (Hidi & Harackiewicz, 2000:74).

Glasser (1998:35) stated that most behaviours are individually chosen, and we are driven to satisfy five basic needs: survival, love and belonging, power, freedom, and fun. These needs form the core for motivation and behaviour. People have pictures stored in their heads that comprise their "quality world," and their needs can be satisfied only by satisfying those quality-world pictures, choosing to act in ways that they believe, at the time, will satisfy their needs as shaped by these pictures. Glasser (1998:37) identified a group of middle school students who had removed learning, teachers, reading, and schoolwork from the pictures they stored in their heads. These students had begun to lose or leave the few well behaved, on-track friends they still have who like school. They developed friendships with students who shared their common interest in disruption and non-academic values. They frequently skipped classes and eventually lost ground academically. At the end of middle school, many were less prepared for high school than when they entered. These students regularly demonstrated disciplinary problems throughout their school careers.

2.4 Motivation theory applied

After looking at motivation theory, studies were also reviewed that analyzed how to best motivate students toward graduation. Research conducted by Amrein and Berliner (2002:53) in 18 Amrein and Berliner (2002:54) concluded that high-stakes tests do not lead to higher student achievement. In addition, such tests can decrease student motivation to learn and lead to higher student retention and dropout rates. When they passed "No Child Left Behind", legislators believed that high-stakes tests would motivate the unmotivated. The unmotivated are disproportionately minority students in urban schools. Amrein and Berliner (2002:52) found that

when rewards and sanctions are tied to tests, students become less intrinsically motivated and are less likely to engage in critical thinking. They also found that when the stakes are high, teachers are less likely to encourage student directed exploration of topics and instead are more likely to create teacher-driven lessons.

The researchers indicate that test-driven classrooms exacerbate boredom, fear, and lethargy, promoting all manner of mechanical behaviours on the part of teachers, students, and schools, and bleed schoolchildren of their natural love of learning. The assumption that high-stakes tests increase motivation is flawed, and there is evidence that it increases the likelihood of dropout and retention. Amrein and Berliner (2003:79) found that the dropout rate was 4% to 6% higher in states that had an exam requirement for graduation. According to DoE (2011), they found that least 7% of youths get to obtain some other qualification at the Further Education and Training level such as a qualification from a public or private FET college. However, most of these youths are youths that also hold a National Senior Certificate. Only around 40% of youths get to obtain some qualification at the FET level, meaning 60% of youths are left with no qualification at all beyond the Grade 9 level. This has serious negative implications for youths when they attempt to find jobs and makes enrolling in post-school studies difficult and often impossible. Moreover, the psychological and social implications of having no qualification to show as evidence for what is usually more than ten years of education is also estimated to be large. Getting more youths to obtain at least one relevant FET qualification, either from a school in the form of the National Senior Certificate, or from an alternative institution such as an FET college, continues to be a major part of the challenge of tackling unemployment and disillusionment amongst youths.

Another study by the same authors (Amrein& Berliner, 2003:57) found that there was a 25% higher chance of dropping out for those in the bottom quartile when compared to comparable states. Amrein and Berliner (2002:54) also found that in states with high-stakes tests, students with otherwise good academic records who did not pass were more likely to drop out of school. They also found that in states that had a high school exit exam, 88% of them had higher dropout rates than states without the tests. In 62% of the states, dropout rates increased relative to the nation's dropout rate after the state implemented the exit exam.

Additionally, Amrein and Berliner's (2002:65) research indicated that 63% of the states with exit exams reported a decrease in the age of students taking the test that allows them to opt out of high school. They also noted that the 10 states with the lowest continuation rate from 11th to 12[th]grade all had exit exams. When analyzing student motivation and results, Amrein and Berliner (2002:87) found that practices such as test preparations and narrowing the curriculum did show improved results on the state tests. When extrapolating that result to normed national tests, they found that the increase in achievement did not transfer. They did not see an increase in achievement in states that used high-stakes tests. The researchers suggested that educators risk reducing students' motivation to learn, may drive students and teachers away from our public education system, and may ultimately produce a less educated populace if we continue to placate the politicians. They contend that scores will rise, but students may be harmed in the process.

Dweck (2006:89) postulated that rewarding everyone does harm in the long run. The author further stated that many believe that praising students' intelligence builds their confidence and motivation to learn, and students' inherent intelligence is the major cause of their achievement in school. She went on to say that the first belief is false and the second is harmful. The researcher believes there is research that helps us know how to praise in order to build motivation and resilience. Students who believe that their intelligence is a fixed trait tend to seek activities that confirm this, and this can interfere with learning. Students who believe that they can develop their intelligence focus on doing that, not worrying about how smart they will appear. They take on challenges and stick with those challenges because they believe effort can lead to success. Dweck (2006:89) maintained that there are two kinds of mindsets; namely fixed mindsets and growing mindsets. Students who believe in the fixed mindset reject opportunities to learn if they make mistakes. They fear judgment or not being smart. When they do make mistakes, they try to cover them up.

Dweck (2006:90) described this category of students as afraid of effort because effort makes them feel dumb. They believe that if you have the ability, you should not need the effort. This is one of the worst beliefs a student can have, as it can cause many bright students to stop working when the curriculum becomes challenging. Dweck (2006:87) postulated that students in the fixed mindset do not recover well from setbacks. They decrease their efforts, and some may resort to

cheating or state they do not care. Conversely, students operating under the growth mindset model accelerate their effort in the face of a challenge. They see it as something positive that encourages them to grow. The researcher further contends that students who believe in a growth mindset model outperform their equivalent peers. Dweck (2006:90) found that praising academics give them a short burst of pride followed by a long string of negative consequences.

To test her theory, Dweck (2006:87) had teachers praise some students for their intelligence and others for their effort. She found that teachers helped shape the mindset of the student. Students who were asked whether they agreed or disagreed with a series of questions were greatly influenced by the way the teacher used praise. When given a challenge, the growth mindset students remained confident and eager while the fixed mindset students lost their confidence and enjoyment of the task. The research results helped created interventions to teach growth mindsets to students.

Students were taught about their brain and how to increase their intelligence. Explicit instruction on how learning takes place led students to understand and change mindsets. This class was said to "unleash their motivation". Dweck (2006:78) noted that confidence could not be handed to students. Instead, she suggested that educators could guide students toward the growth model and encourage effort in all tasks. Teachers influence their students' motivational level. Each student has a certain degree of motivation, but the teacher's behaviour, body language, and teaching style; the relevance of assignments; and informal interactions with students greatly affect student motivation.

2.5 Student engagement

In reviewing the literature for factors related to dropouts, student engagement emerged as a recurring theme that contributes to the prevention of dropout-related issues and to students' success in school. However, engagement is not a solo activity; it is about interactive relationships. Student engagement involves active participation in learning and schoolwork, as well as in the social life of school. Regular attendance of school, class participation, effort in doing schoolwork and avoidance of disciplinary actions such as suspensions, are all behavioural indicators of engagement. Interests and enthusiasm, a sense of belonging and identification with

the school constitutes psychological engagement (Christenson & Thurlow, 2004; Fredericks, Blumenfeld, & Paris, 2004).

Students leaving high school often cite a lack of motivation, boredom, an unchallenging atmosphere, and an overall lack of engagement in school as a reason to drop out (Bridgeland, DiIulio, & Morison, 2006:78). Engagement venues outside of the classroom include clubs and fine arts activities, as well as athletics. Lack of student engagement was found to be significantly causal for dropping out of school at the high school level (Alexander & Entwisle, 2001:65). Given the large number of issues related to student engagement, the research focused on the following areas: behavioural engagement, academic engagement, psychological disengagement, and social engagement.

2.6   Behavioural Engagement

Hammond (2001:43) found that descriptions of the domains of behavioural engagement are interrelated and dependent on each other. Behavioural disengagement was strongly correlated with discipline problems in both middle and high school (Alexander &Entwisle, 2001; Hammond, 2001:64). As early as first grade, aggression and behaviour problems were correlated with dropping out of high school (Cairns et al., 1999:76). However, Balfanz and Herzog (2005:109) noted that the better measure of discipline was behavioural grades rather than suspensions. Suspensions could occur at lunch and during passing periods and did not necessarily show disengagement within the classroom.

According to Balfanz and Herzog, behaviour within the classroom was more highly correlated to dropouts. Battin-Pearson, Guo, Hill, Abbott, and Hawkins (1998:87), in a study of elementary school student engagement, found that the size of the school and the concentration of students with multiple risk factors also correlated with a higher dropout rate. The effect of a campus with more opportunities to connect with individuals, smaller class sizes, and interventions for those at risk bears further study and analysis. Battin-Pearson et al. (1998:52) surmised that early interventions to connect elementary students with their schools could have positive long-term effects on later graduation rates.

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2.7 Academic Engagement

Hammond (2001:24) defined academic engagement as being actively involved within the classroom. Successfully participating in class, as well as consistently attending school is correlated with academic engagement. Within academic engagement are factors that signal disinterest including dropping grades, lack of enthusiasm, and attitude toward school. Behaviour within the classroom and the interaction with the subject matter and the instructor are critical. Professional development on how to recognize signals, as well as on how to engage students, can assist in deterring academic disengagement. This supports Balfanz and Herzog's (2005:87) research that behaviour in the classroom is correlated to dropouts.

Balfanz and Herzog (2005:65) followed a cohort of sixth graders for 6 years in Philadelphia. They used a unique monitoring system housed at the University of Pennsylvania's Cartographic Modeling Laboratory. This tracking system monitored this cohort in pursuit of the answer to three main questions: How many students dropped out in a year? What percentage of students graduated from high school in 4 years? And what characteristics can help school sites identify possible dropouts? They found that over 13,000 students dropped out of Philadelphia schools in 2003-2006. They also found that approximately 54% graduated from high school in 4 years and that students who missed over 5 weeks of school in eighth grade, as well as received a failing mark in English or mathematics in eighth grade had an 80% chance of dropping out of school. They also found that ninth graders who were not on track to graduate after the completion of their 11th grade year had a 75% increased probability of dropping out. Balfanz and Herzog found predictors of dropout and determined the lack of engagement physically and mentally led to a much higher rate of dropout.

Academic engagement can be defined as either superficial or deep. Superficial engagement requires students to follow rules and participate compliantly. Deeper academic engagement is evidenced by a desire to learn and master subject matter (Battin- Pearson et al., 1998:543). Academic engagement could be the result of teachers who connect with students, engaging curriculum, relevant lessons that use internships, or hands-on experiences. A systematic approach to increase academic engagement will support all students and more explicitly target those who have started the process toward dropping out (Battin-Pearson et al., 1998:423).

2.8 Psychological disengagement

Being uncertain about the future, uncertain that one will graduate, and having no plans for post high school education are indicators of possible student psychological disengagement. Students report they feel that they do not belong and dislike school (Hammond, 2001:556). Hammond (2001:567) recommended that further study on those who succeed, despite psychological engagement, would provide insight into how school systems can intervene when student attitudes are poor or a sense of belonging is lacking.

Opara (2003:76) compared a suburban and an urban high school looking for factors that could lead to dropouts at both. He attempted to isolate experiences that led to choosing a particular path and to discover how students navigated their high school careers. A purposive sampling method was used to select 200 students. A deliberate effort was made to obtain representative samples by including presumably typical groups in the sample. Data were collected through participant interviews, questionnaires, and document analysis. Through data analysis, four pronounced categories emerged. Opara (2003:87) found that combinations of factors are responsible in creating an atmosphere of separation from a high school learning environment. He found that a lack of parent involvement, lack of discipline, lack of self-identity, as well as low socioeconomic status all increased the likelihood of dropping out. He also found that the problem was more rampant in inner city urban schools.

In a more focused study, Ett (2008:61) studied an urban comprehensive high school in search of evidence of a link between academic and psychological engagement. She used the case study method in conjunction with a University of Southern California research group. In this case study, she first analyzed high schools in Southern California that had academically outperformed schools with similar demographics. She then selected a school that met this criterion for a detailed case study analysis. Ett (2008:65) studied the amount of student engagement within the campus and looked for additional measures of success. She used the conceptual model created by her research team to guide and categorize data. She also used the Indiana University instrument, the High School Survey of Student Engagement (HSSE), to define engagement. The survey was pilot tested in the spring of 2003, with 7 200 students in four high schools. The instrument was

reviewed and revised and 90 530 students took the HSSE in the spring of 2004. The survey was also given in the spring of 2005. The research focused on two questions:

1. What perceived factors contribute to academic achievement in a high performing urban high school?
2. Is there a link between student engagement and student achievement in a high-performing urban high school?

Ett's (2008:71) research included qualitative data as provided by the case study, as well as quantitative data gathered from the HSSE instrument. The researcher used archival data available on the California Department of Education website to look for success on California's Academic Performance Index rate, state-wide rank, and whether the school had met targets set for them by the State of California. Ett (2008:76) found that John Q. Public High School beat the odds due to a shared vision, staff members' ability to connect with students, and an emphasis on parent involvement at all levels.

2.9 Social engagement

Social engagement refers to the involvement of students in positive relationships with other students and peers (Neild, Stoner-Eby, & Furstenberg, 2008:31). Social disengagement is present when students have no connections with peers, lack social skills, or their peer group is also at risk of dropping out, or one is currently a dropout (Hammond, 2001:67). Creating structures to encourage more positive peer influence, as well as time to interact and connect within a school culture, holds promise for further study. High school seniors who socialized with dropouts more than four times a week, and were not connected with others on track to graduate, were much more likely to drop out (Neildet al., 2008:67). Wagner (1996:76) found this was more likely to occur with special needs high school students. She contends that schools wishing to correct this trend can promote programmes like a Circle of Friends or other social clubs that explicitly connect students on campus, particularly those with disabilities.

In addition to lack of social or academic skills, student engagement in school often suffers (Neild et al., 2008:87). For some, the precursors of dropping out appear in the early elementary school

years (Alexander, Entwisle, & Horsey, 1997). A longitudinal study in Baltimore identified early elementary predictors including family stress, initial engagement in school, and reading group level (Alexander et al., 1997:612). The early transition into school influenced by family experiences in the preschool years puts some students on track for low academic achievement, acquisition of a "troublemaker" label, and disengagement from school (Neild et al., 2008:531). Changing this path is possible, but the negative effects appear years later with grade retention, tracking into a remedial pathway, and dropping out.

While early childhood experiences may predispose students to drop out of school, researchers have suggested that dropping out is the culmination of a long process of becoming less engaged in school (Finn, 1993; Newman, 1992). Both academic and social disengagement can potentially lead to dropping out (Neild et al., 2008). Research by Brewster and Fager (2000:76), Bryck and Thum (2009:54) and Sinclair et al. (1998:98) on engagement, shows that attachment to school is critical for students to have a successful educational experience. Students who feel isolated from peers, teachers, and parents lack any positive relationships. Peer groups that connect students to school have potential for decreasing the dropout rate. Students often engage in behaviours outside of school that make it harder to learn during the day. We also see the importance of a structured school and the need to address student behaviour before it leads to poor attendance and suspension. Establishing clear expectations for classroom and school behaviour is imperative, as is identifying and enforcing specific consequences when expectations are violated. Finally, academic engagement is necessary to continue to build skills necessary for success in the classroom. Students who become disengaged fall behind academically and slowly disconnect from the school, leading to a higher incidence of dropout. Programmes that address different kinds of student engagement and recognize the signs of disengagement are necessary to fully support students toward graduation.

Although student engagement is a critical and seemingly insurmountable issue when analyzing student dropout behaviours, some schools appear to have made gains in this arena by developing school-wide practices to cultivate student engagement beliefs, values, motivation, behavioural habits, and skills. The next section of this literature reviews investigated programmes that have

shown success with students who might otherwise have become disengaged and on the path toward dropping out.

2.10 Successful programmes

Many programmes in and outside of schools have been designed to support students who exhibit behaviours that are consistent with disengaging from the educational system and hence potential dropouts. These programmes make use of a variety of methods from moving the school to a different location in a behaviour modification boot camp. Programmes at schools range from the minimal tracking of student achievement data to creating new schools that use different modalities for learning. This investigation examined a programme that operates from a shopping mall, a programme that uses technology to reach at risk youth, programmes designed to support academics, programmes using early warning systems, programmes focused on the transition into high school, as well as a programme that engages community members with at risk youth.

2.11 Shopping mall school

Motivating students via different teaching modalities has been studied for years. However, seeking to motivate students by changing the setting in which they learn to an appealing location is a relatively new concept. Relocating students from the environment in which they initially failed to a more interesting venue has helped unmotivated students improve. A shopping mall may be perceived as an unusual setting for a school.

However, students accustomed to a consumer-based society find shopping malls as an energizing atmosphere full of positive experiences and potential opportunities. Motivating a student to stay in school often takes an experimental and creative approach. The goal is not to create an educational environment that is easier or more difficult than traditional high schools; the school merely takes a different approach. Like traditional high schools, every student must pass the required state testing standards in order to graduate and receive the qualification.

2.12 Technology focused alternative schools

In addition to changing the venue, a look at changing teaching and learning strategies may be another option for lowering the dropout rate. One of these teaching and learning strategies is the

use of technology in the classroom. Technology is an emerging strategy that attempts to teach the hard-to-reach student. Some students who have not been successful with the traditional lecture modality have found success using technology. One school that makes technology a cornerstone of its programme is the Virtual Education Academy (VEA; Smith & Lee, 1997; White, Lare, Mueller, Smeaton, &Waters, 2007:89). The Academy was created for homebound students who were at risk of dropping out due to extended illness, psychological problems, or serious behavioural issues, and excluded secondary students. The design team consisted of teachers and university faculty. The team developed a curriculum for students in grades 9–12 in English, mathematics, science, social studies, and citizenship using technology as the primary mode of instruction. The team also developed a highly successful mentoring programme. Subject area expert teachers in the school district developed the rest of the coursework.

In one of the studies by White et al (2007:90), college students were trained in role modelling, confidentiality, and team-building activities then paired with VEA students. Mentors and students met for 2 hours each week at the nearest high school campus. One hour was spent on planned team-building activities, and the second hour on the online core curriculum. Participating school districts found that they saved money on their homebound student budget and that the VEA programme was highly effective in helping students' transition back to a traditional high school campus (White et al., 2007:27). Fourteen of the 37 students participating in this programme returned to the traditional high school campus the next year and none of them dropped out. White et al. (2007:67) examined the work done and concluded that they determined that students benefitted from an online curriculum enhanced by face-to-face mentoring and that the blend of academic and social emotional support created a rich and multidimensional product (White et al., 2007:78).

2.13 Programmes with academic supports
Programmes that help in creating both social and academic support systems seem to have additional success with targeted student populations. Programmes that provide a look at life after high school and provide opportunities to succeed in college have assisted in curbing dropout rates (Conchas & Clark, 2002:172). This provides exposure to a rigorous curriculum, enhanced organizational and study skills, access to college student tutors, collaboration among teachers in

each school, and academic progress through intensive writing efforts (M. C. Swanson, Marcus, & Elliot, 2000:64).

Tyner-Mullings (2008:32) studied a programme at a specific high school that worked to teach urban students habits of mind. In an attempt to measure the impact that teaching students how to study had on their future careers, this longitudinal study used web-based surveys and interviews to follow 225 students 10 years after they left the alternative high school. This study found that students perceived the meta-cognitive lessons positively and attributed the lessons to assisting them with their future.

Extended time in school has been shown to assist students on the path to dropout. Schools that provide summer courses for students who need extra support or other enrichment activities are more successful in lowering course failures and dropout rates (Hertzog, 1996:65). Summer Bridge is one such programme that has been implemented across the United States and provides incoming ninth-grade students with enriching summer activities that give academic support, advancement, and motivation to excel in high school through career-related field trips and other relevant activities. These and other previously mentioned programmes provide continuous and varied articulation throughout the transition process with proven success.

Although many of these programmes appear to be successful individually or in combination with others, few allow for adaptation to students' specific needs. One-size-fits-all solutions are unlikely to be successful in the long term because the middle to high school transition is different for each student, and students drop out of high school for a variety of reasons. This fact calls for more flexible and targeted transition programmes with a focus on early intervention.

2.14 Programmes using early warning indicators

Research on the transition into high school is clear that 11[th]grade is a make or break year (Allensworth & Easton, 2007:69). More students fail 11[th]grade than any other grade in high school, and a disproportionate number of students who are held back in 11[th]grade subsequently drop out (Herlihy, 2007:83). Although transition programs are helping to address the middle-to-high-school transition, research has suggested that readily accessible data can also be used to

identify students most likely to be adversely affected by the transition and to further understand the root of their struggles.

Such data in the form of an at-risk or on-track indicator is determined by performance in core academic courses, number of credits earned, grade point average (GPA), and attendance and can be used to evaluate the effectiveness of transition programmes. Allensworth and Easton (2007:542) have shown that freshmen who fail one or two courses in their first semester of high school are less likely to graduate, and those with three or more fails are not likely to graduate. Students with a GPA of 2.0 or less at the end of their freshman year are less likely to graduate. Attendance during the first year of high school has a direct correlation to graduating. Research suggests that missing more than 10% of instructional time is cause for concern (Allensworth & Easton, 2007:652).

With regard to South Africa, the DoE (2011:7) discovered that the overall dropout rate from the school system (from Grades 1 to 11) was 4%. It was around 1% in Grades 1 and 3 and less than 1% in Grades 2 and 4. From Grades 5 to 8 the dropout rate was minimal, ranging between 2% and 4%. The low dropout rate in the lower grades was consistent with the high enrolment rates in these grades. From Grade 9 upwards, however, the dropout rate increases, reaching almost 12% in both Grades 10 and 11. In total 10% of learners who had been enrolled in Grades 9 to 11 dropped out of school between 2007 and 2008. Therefore, these are worrying margins that deserve immediate intervention.

2.15 Programmes addressing school transition
Many states, districts, and schools have addressed middle to high school transition issues through various programmes and interventions that involve students, parents, teachers, and administrators from middle and high schools. Often, these programmes seek to address the academic, social, and logistic details of the transition to ease future effects, including high school dropout (Alliance for Excellent Education, 2004:67).

Although these programmes are developing slowly, initial research suggests that those involving students, parents, and teachers in the transition process have the greatest effect. Many high

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schools partner with local middle schools to implement transition programmes for all incoming students. These programmes range from informational assemblies for incoming students to comprehensive monthly meetings with teachers, counsellors, and administrators from both schools (Alliance for Excellent Education, 2004:65). Other programmes involve informational parent meetings, student shadowing programs, panel discussions, and high school course counselling sessions. Although most schools use some combination of these transition aides, few implement programmes that wholly involve students, parents, and faculty from both schools, providing complete support.

Smith and Lee (1997:71) suggest that full transition programmes that involve complete support have the greatest positive effect on high school retention and experiences. In contrast, programmes that target only a single aspect of the transition showed no independent effect on these outcomes. Other studies suggest specific characteristics of successful transition programmes that are related stress academic and social support systems (Reyes, Gillock, Kokus, & Sanchez, 2000; Watson, 1999:98). These characteristics include long-term commitment to support during the transition process through well-developed support programmes; ongoing planning to adapt these programmes to changing contexts; frequent communication with students, parents, and schools; and assessment of programme success through surveys and other instruments.

In addition, programmes that allow students to ease into the high school and interact with older students; and gather information on courses, facilities, and safety have proven to be particularly effective (Mizelle, 1995:67). Parental involvement is also a key to a successful middle to high school transition. Schools and teachers that implicitly reach out to parents and encourage participation maintain higher levels of involvement, even though parental involvement in school tends to decrease once students reach high school. Students with involved parents tend to be higher achievers, have lower dropout rates, and be better adjusted to the changes involved in the transition to high school (Hantos& Power, 1997; Horn & West, 1992; Linver & Silverberg, 1997; Paulson, 1994:72). A review of the literature suggests that parents should be well informed about details of the transition process, privy to curricular and course decisions that their child makes, and part of the planning for future articulation activities (Allensworth & Easton,

2007:65). Equally important to a successful high school transition are rigorous and challenging middle-school course work and early intervention programmes that promote academic achievement and support even before students enter high school. These programmes often part of the regular middle school curriculum, serve to better prepare middle-school students for higher expectations in high school and increase their confidence about learning and working with others (Mizelle, 1995:67).

2.16 Community programmes

In addition to programmes within schools, outside agencies have stepped in to support our at-risk youth. Many programmes outside of schools have been designed to support students who appear to be disengaging from the educational system.

2.16.1 Social networking

It is well documented in the educational literature that racial minorities are far less likely to exercise the social, cultural, and informational capital that is traditionally valued by the school culture (Delgado-Bernal, 2002:89). Social Networking programmes can make staff prioritize access to role models and mentors who could create opportunities and deliver information to marginalized youth. In fact, programme participants can identify the power behind the social networks or social capital that, according to students, can operate to foster a positive feeling toward school (Christenson & Thurlow, 2004:87).

Social networks comprised family, school, and community partnerships validated, supported, nurtured, and functioned to empower young people around a support network of healthy relationships. Leveraging and utilizing social networks was a central belief that guided the programmes' initiatives and practices with the participants. For example, students can access to programme alumni and older programme mentors. During the after-school programme, students have access to college-level tutors (Christenson & Thurlow, 2004:89).

Understanding the connection between schools and communities allows a deeper understanding of the issues young people confront. Bridging the gap between the community and the school can be an effective approach to fighting truancy and dropout, and in assisting to re-engage young

people in school. Schools are not isolated from the neighbouring surroundings. Shared information and a collective sense of responsibility can help bridge a former divide and are essential to building a safety net for students.

Studies about what is working in schools have customarily looked at programs and policies that led to a variety of school changes to facilitate student success. A methodological approach that has not been used extensively in research studies of programs that work is that of surveying or interviewing students themselves about what might be best. This type of methodology is the basis for this study. The following section is included to support this approach.

2.16.2 Student Voice

Student voice is a critical resource when studying the issue of dropouts. In this section, research studies that centred on listening to and learning from students themselves were investigated. Students provide a unique perspective about the climate of the high school, what is happening on campus, and how the school can improve. Each student brings a distinctive set of characteristics to the classroom such as different background knowledge; an individual learning style; a variety of interests, talents, strengths, and weaknesses; and varied parental support and expectations. Croninger and Lee (2001:67) investigated the role of the teacher in dropout prevention. They found that schools with highly supportive teachers reduced the likelihood to drop out in by half. Croninger and Lee (2001:87) used data gathered from a 10th grade student questionnaire. Their main focus was measuring social capital at the high school and investigated whether teachers were interested in students, whether teachers valued what students said, whether the teachers were good teachers, whether they cared about students and wanted them to succeed, whether teachers recognized and praised students when they worked hard, and whether they put students down in the classroom.

Croninger and Lee (2001:78) sought to test the impact of social capital to see if and how it counteracted the risk of dropping out. They found that supportive relationships and guidance from teachers increased the likelihood that socially and academically at-risk students completed high school. Informal exchanges with teachers outside of class were especially beneficial to students who were struggling both socially and academically. Croninger and Lee (id.) found that

student contacts with teachers considerably boosted their chances for graduation. These results confirm that the quality of students' relationships with teachers is an important predictor of educational success.

In order to better define student voice, Mitra and Gross (2009:987) created a pyramid to illustrate a hierarchy of student input. The pyramid begins with a basic form of student voice. Research on reform efforts acknowledges that students possess unique knowledge and perspectives about their schools that adults cannot fully replicate without a partnership with school personnel (Mitra& Gross, 2009:64), including a willingness to discuss topics adults are reluctant to address such as inequities in the system (Fine, 1991; Mitra & Gross, 2009). Students are witnesses to school policies that exacerbate achievement gaps and school conditions that are unsafe or unproductive (Fine, 2001:41).

Collaborating with adults is the next level. Students work with adults to make changes, collect data on school issues, and work to find mutually agreed upon solutions. This level of partnering can possibly remind teachers and administrators that students provide a unique perspective. Student participation in curriculum development, classroom practice, and teacher training has shown improvement in student attachment to school and achievement (Mitra & Gross, 2009:56).

Student leadership defines the final level of student voice. By providing students with the ability to significantly influence decisions that impact their lives as well as their peers', it is believed the attachment to the school is strengthened, which in turn correlates with positive student outcomes (Mitra&Gross, 2009:76).

In another study that focused on discovering why students leave school and why they return, Keene (2003:72) analyzed student perceptions. Students in adult-school programmes in California volunteered to participate in a survey and were later interviewed about why they decided to return to school. One hundred and twenty students entered adult school after leaving a comprehensive high school setting. Nineteen of the 120 students volunteered to participate in the focus-group portion of the study. Volunteers from the remaining larger pool participated in a supplemental written questionnaire.

Five of the 19 volunteers participated in individual interviews two months after the first interviews. Three questions were asked in the focus groups, and then the researcher categorized the responses. The questions were:

1. Why did you decide to drop out of school originally?
2. Why did you decide to return to school?
3. What are your plans for the future?

Written responses were coded into one-line phrases to find emerging themes that described the motivation behind dropping back into high school course work (Keene, 2003:45). Keene (2003:78) found that students recommended an increase in engaging programmes, including vocational education. Students also stated that teacher advisory programmes and small class sizes would have helped them if they had stayed in a traditional setting. Keene found that students believed school policies closed the door to their returning. Students also reported that information about options, including community colleges, was not as accessible as it should have been. Finally, students in Keene's study asked for a more flexible system that provided scheduling options at night and during the weekend as well as online courses.

In a study that sought student input to further understand a school issue, Joseph (2004:67) analyzed the experiences of Hispanic youth in the public school system to determine their school experiences and analyzed the correlation between dropping out and lack of school integration with college students. Concept mapping was used to cluster information gathered from focus-group studies. Joseph sought answers to the following questions:

1. What were the internal and external factors that contributed to Hispanic dropouts' decision to leave school?
2. What were Hispanic dropouts' perceptions of the institutional factors contributing to their decision to leave school?
3. How useful and applicable was Tinto's theory on student departure to the interactions and experiences Hispanic dropouts had within schools?

Joseph conducted individual interviews with 11 participants and held three focus-group sessions utilizing concept-mapping methodology. Her findings indicated that Hispanics came to school with the intention of getting a high school diploma; however, experiences at school from entry to departure led to a slow process of disengagement.

2.16.3 Teaching quality

A number of researchers including Parkinson, Hayton and Strachan (2009:65) and Streckfuss and Waters (2011:76) found that teaching was an important factor related to retention. In fact, Yore (1999:78) concluded that the quality of teaching was the dominant influence for students deciding to withdraw from tertiary courses. Moreover, according to the Staff College Research cited in Martinez (1995:64), students who had withdrawn could be distinguished from those who had persisted on the basis of the significantly lower opinions that they held of the college and in particular, the teachers.

In addition to the overall quality of teaching, Martinez and Munday (1998:34) found that other issues related to teaching which assisted in distinguishing 'persisters from withdrawers' included whether students got enough help with their work, whether teachers were well prepared for their lessons, and whether students got enough feedback on assignments. Other researchers including Naylor and Naylor (2008:7), Brougham (1998:8), Mill (2001:87), Parkinson, Hayton and Strachan (1997:87), Johnson (2004:90) and Yoke (1999:87) have also found these aspects of teaching important in determining whether students persist with their courses. Hence the quality of teaching comprised items reflecting each of these three aspects as well as an item reflecting the overall standard of teaching.

2.16.4 Social integration

Research conducted by Pascrella and Terenzini (2000:76) and Martinez and Munday (1998:78) confirmed the importance of social integration in relation to persistence. Martinez and Munday (1998:87) reported that students were more likely to withdraw if they experience difficulty in making friends. In the Further Education Unit (FEU) survey cited in Martinez (1995:98) it was reported that a greater proportion of completing students felt welcome and enjoyed the support of other students and staff more so than did students who withdrew.

Procrastination has also been identified as another concept "The procrastinator is ...someone who knows what (s) he wants to do, in some sense can do it, is trying to do it yet does not do it (Alston, 2007:67 as cited by Silver & Sabini, 2001:78).Procrastination is a stable trait and is related to temperament (Ferrari 1995). It is normally distributed as follows: 40% of people having experienced loss due to procrastination and just over 25% of people experiencing chronic debilitating procrastination (Mc Cown & Roberts 2004:76). Procrastination tends to plateau in young adulthood; that is early twenties then decline until the sixties (Mc Cown & Roberts 2004:75). Students in particular have high self-reported instances of the disorder, which interestingly seems to increase in higher education (Aitken 1998:65).

Procrastination can be viewed as a bad habit, which has been reinforced. Students tend to avoid tasks, which they find unpleasant (Solomon & Rothblum 2004:63) and engage in activities which are more rewarding, especially with short term over long term gain (Mc Cown and Johnson 1997:87). It may be a way of avoiding and escaping responsibilities (Ferrari and Emmons in press as cited by Ferrari 1995:65) or the anxiety associated with studying (Solomon & Rothblum 2004:43).

2.17 Secondary causes of college dropout

There have been a number of theories presented to understand the phenomenon of college or high school dropouts in the past several decades around the world (Suen, 1999; Sowell, 1997; Rumberger 2001:65). The literature shows that most of the studies on college and high school dropouts fall into two categories. Rumberger (id.) asserts that a large body of the studies focuses on the identification of the variables that are associated with at-risk students or the causes of student dropout. Another group of studies focus on the effects of dropouts. Rumberger (2001:56) introduces two frameworks that categorize the factors leading to higher college dropout rates, and these frameworks help to generalize the factors to understand the theories more clearly. He indicates that one is an individual perspective and another is an institutional perspective. The individual perspective is based on the students' characteristics, such as values, attitudes, and behaviours. Student engagement, academically and socially, are the indicators of students' decisions to leave school. Using Rumberger's (id.) framework, theories in those individuals, families, schools, and communities will be examined below. In the individual framework, several

psychological factors influence dropout behaviour. The role of individual ability has been widely studied.

Most studies concluded that people who drop out demonstrate lower levels of academic ability than do students who finish high school, or they were unable to perform well in the class (Suen, 1999; Sowell, 2008:176). Measures of self-confidence and sociability have also been used to distinguish between high school dropouts and graduates (Rumberger, 1999:172). In addition, educational and occupational aspirations also appear to be important factors (Sowers, 1996). Rural populations may similarly place less emphasis on completing college on the road to adulthood (De Young, 2007:4). Waite and Moore (1998:51) conducted research on the relationship between a young woman's pregnancy and college educational attainment. Marini (1998:34) argues that women's marriage has an effect on women's educational attainment.

Likewise, Sowell (1996:54) argues that early marriage and teenage parenthood are associated with dropout behaviour. Those students are likely to have their schooling disrupted or terminated after marrying or becoming a parent. Dropouts are also more likely than other young people to engage in crime and have drinking problems (Stoup & Robins, 1998:45). Cairns et al. (1999:67) argue that variables like doing poorly in school subjects and being older than peers have negative effects on dropouts. Wood (2003:312) found that changing colleges increased the probability that a student would drop out of school. In a study of middle college dropouts, Rumberger (1999:12) found that policies affecting student transfers would influence a student's decision to stay in college. The transition of students from high school to college can be compared to a student transfer requiring the adjustment of all students to a new learning environment.

2.18 Social isolation

Braxton et al. (1997:323) tested a series of fifteen propositions, which are considered to be directly connected with student departure decisions. It is their ninth proposition which touches upon the issue of social integration. They believe that higher levels of social integration lead to corresponding levels of commitment to the institution. In other words, students with clear social involvement on campus were found to persist to a greater degree than those who keep themselves socially isolated for one reason or another. Students who are so reluctant to utilize

their time, energy, and resources in establishing social relationships with their colleagues do not usually develop a sense of belonging or affiliation to the institution, as do their sociable peers. In this context, it was found that peer pressure might be a very influential factor. For example, students who do not have substantial relationships with other students may think about dropping out, only to avoid being criticized by others. Sometimes it is easier to bear or stand severe criticisms when you have a friend who shares the criticisms and peer pressure with you. Therefore, educational institutions must introduce the kinds of creative programmes that will encourage interaction and involvement from its participants. It is the responsibility of educators not to ignore the importance of good old–fashioned friendships in the student persistence formula.

Communication via the medium of writing is another vital point studied by Murray (2001:23). He points out several reasons for students dropping from an online programme. One of the reasons discussed is the fallacy that taking an online class is easier than attending other traditional classes. In fact, online courses often require more time to be assigned to the actual course than the time invested in a face-to-face session. This includes more typing where most communication takes place through written form and more reading where the students construct and develop their knowledge through reading. In the distance learning class, most communication is achieved through writing, so it is necessary that students feel comfortable in expressing themselves in writing. This may require remedial efforts on the part of the student. Meaningful and quality input into the online classroom is an essential part of the learning process.

In addition, students who have easy access to computers will likewise have positive attitudes towards the use of computers in learning. Also having the required computer proficiency affects students' comprehension of the material presented (Hong, Ridzuan, and Kuek, 2003:42). Other researchers found that those who joined a distance-learning course with poor technical skills did not progress as well with the course content and often they found themselves overwhelmed by some of the assignments. Moreover, student's ability to deal with the modern communication media is necessary to participate in a distance-learning course; and this skill is positively correlated with success in that course (Cohen, 2001:52). Hence, it was discovered that social

integration, motivation and quality of teaching as important factors influencing non-completion and academic achievement.

2.19 Dropout prediction

Given the dire consequences of dropping out for both individuals and for society, it is essential to know which factors are linked to an increased risk of dropping out. Recent research has shown that the negative outcomes of dropping out for individuals are related to one another and that their causes and the antecedents of dropping out are intertwined (Beauvais et al., 1996; Jarjoura, 1997; Upchurch, McCarthy, & Ferguson, 2003:32). By addressing the precursors of dropping out, not only will students stay in school, but also future problem behaviours can also be avoided.

Morrow (2007:52) described the different ways that dropouts can be defined:

- Push outs are undesirable individuals the schools actively try to force out of school;
- Disaffiliated students who neither bond to school nor to people in it and who do not want to continue to be in contact with the school;
- Educational mortalities are those who are incapable of completing the programme before they age out of it, usually slow students or those in special education;
- Capable dropouts are individuals who possess the skills for graduation but who are not socialized to school demands or to the value of a diploma; and
- Stop outs are individuals who leave and typically return within the year.

Kronick and Hargis (1998:45) took the idea of different types of dropouts further to propose a theory of the high school graduation and dropout process. The first type of dropout, and the largest group, is the "quiet dropout." This type of dropout is defined by low achievement and repeated grade failure with a reaction of stoicism. The second type of dropout is the "low achieving push out." This type of dropout is defined by low achievement, chronic grade failure, and behaviour problems. These students differ from the "quiet dropouts" because they overtly react to their chronic failure.

The third type of dropout, and the smallest group, is the high achieving push out. These students have adequate and even above average academic potential and often display behavioural

problems. The source of their school failure is circumstances outside of the school, such as motivation problems, family problems, and substance abuse. The final type of dropout, "in-school dropouts," are not formally considered to be dropouts because they do complete school; however, they drop out of the learning process due to their low academic potential while physically staying in school. To represent the entire student body, a fifth type of student must be included, the high school graduate. Of these four types of dropouts, one type has been studied repeatedly in research.

This typical dropout is the low-achieving push out. As summarized by Goldschmidt and Wang (1999:720), previous research has consistently identified the following factors as indicators of risk for dropping out: "(1) single-parent family, (2) low annual family income, (3) being held back at least one grade, (4) parents without high school diplomas, (5) having a sibling who dropped out, (6) low achievement, (7) limited English proficiency, (8) working while enrolled in school, and (9) misbehaviour".

Are these characteristics descriptive of all dropouts or just the "typical" dropout? Studies that have examined dropouts versus non-dropouts have combined the other three types of dropouts, or "non-typical" dropouts, with the "typical" dropout. A study by the McWilliams (1997) found that two-thirds of dropouts who achieved at an average level had academic averages. The researcher found that on the second national education goal, increasing high school completion rates, that the majority of dropouts are not those who seem to be the most at risk.

Two studies have started the investigation into the types of dropouts. Everett, Bass, Steele, and McWilliams (1997:71) divided rural, low socio-economic dropouts into smaller and smaller subgroups based on significant differences on various characteristics such as grade point average and extracurricular activity participation. They found that students at different levels of academic achievement, based on grade point average, had unique identifying characteristics related to the dropout decision. Another study by Mahoney and Cairns (1997:65) found that different types of dropouts exist based on characteristics, such as academic achievement, aggressive behaviour, and popularity with peers. The present study sought to further investigate the differences in the

types of dropouts, in addition to the types of all students, both dropouts and non-dropouts combined.

2.20 Models of students' attrition and retention

Reviewing the academic research papers as well as the theoretical literature shows that the phenomenon of retention underlies a great deal of controversy, complexity, and multi-dimensions. In general, retention theories discuss the factors that influence students' retention positively or negatively (Kinder, Gillis, Reed, Arooz&Carr-Locke, 2002:52). Several theoretical models of retention have been offered in both domains of traditional and Distance Learning.

The theory proposed by Tinto (2004:52) and then modified twice in 2002 and 2003 respectively, is one of the most widely recognized retention theories in the field. Many theorists adopt it as an accredited model of student departure and persistence. Tinto's theory (id.) highlights two factors of students' motivation: their commitment to their academic objectives and their commitment to the institution where they are pursuing these objectives. Many variables are suggested to have a direct impact on these factors; some are peculiar to the student, such as prior qualifications, individual characteristics, and so on and others are specific to the institution, such as teaching, learning support, facilities, and so forth. When these two groups of variables are combined, students are ensured with a sense of both academic and social integration; when one or both are compromised, students are more likely to drop out.

According to Tinto (2004:42), student departure takes two forms: academic failure and voluntary withdrawal. The former (failing to achieve the required educational standard) constitutes only 15% to 25% of the total number of dropouts, while the latter (propensity to give up education) constitutes the remaining 75% to 85%. Apparently, Tinto's model holds that students join university education with a wide range of differentiating factors: family and community backgrounds (for example, social status, parental education), individual attributes such as sex, race, skills- both social and intellectual; financial resources, dispositions such as motivations, political preferences, and various types of pre-college educational experiences and achievements. Such factors are then moderated through the students' commitment to the institution and their

ultimate objective: graduation or completion of the academic degree. Moreover, each factor will have its own direct impact upon departure from college.

Indeed, the reason for adopting Tinto's (1993:54) model is twofold. First, it is the most widely known and accredited hypothesis dealing with retention. Second, it has stimulated the main bulk of empirical research in the field. In his validation study, Tinto (2004:76) reported that such factors as goal satisfaction, institutional commitment, and tutor contact have their own influential bearing. He also notes that grade point average is the most salient predictor of persistence.

Astin (2003:61) claims that retention can be enhanced when students are positively involved in both the academic and social aspects of the entire educational setup. Such involvement requires investments of both physical and psychological energy. Besides, Astin (2003:51) further asserts that the success of any educational policy depends on the amount of involvement achieved. This can be explained by the following chain statement: the more students study, the more time they spend on campus, the more involved they are in student organizations, the more they interact with faculty and other students, the more likely they are to persist and succeed. He also noted that grade point average is the most salient predictor of persistence. Both Tinto's and Astin's (1993:72) studies hold similar views on large-scale multi-institutional studies examining the factors that affect retention and other types of students' outcome. Thus, McEwen and Gueldenzoph (2003:54) said that Astin's Student Involvement Theory is analogous to that proposed by Tinto, but with more emphasis on the role played by students' motivation and behaviour.

In other treatment of the variables affecting students' persistence, Braxton et al. (1997:45) indicate that the five perspectives account for college students' persistence; economic, societal, psychological, organizational, and interactional. However, Garland (2001:67) reported that the reasons given by the students for withdrawing from learning programmes or courses can be grouped into four categories; situational, dispositional, institutional, and epistemological.

In his treatment of retention, Barbadillo (2000:87) designed a four-variable model, which is assumed to predict students' completion of courses. The four variables thereby mentioned are

categorized as follows: background variables, organizational variables, outcome/attitudinal variables and environmental variables. In addition, Berge and Huang (2004:32) endorse the model proposed by Boyles (2000:41) which includes three sets of variables: (1) background and defining variables, (2) environmental variables and (3) academic variables. Besides, the model has seven singular variables: academic self-confidence, academic integration, academic outcome, institutional size, social integration, psychological outcomes, and utility.

As for the importance of the role played by the instructor, Frankola (2001:52) initially emphasized it where he notes that students will drop out even in the most refined course in the absence of interaction between them and the instructor. Such interactivity is a key component of successful online courses.

2.21 Conclusion

The student dropout problem is complex and multifaceted, and a variety of methods must be utilized to resolve it. In order to better understand the problem, Wells et al. (2001:43) categorized dropout predictors into factors. These include student factors, school factors, familial factors, and community factors. The research revealed student factors that lead to dropout include drug abuse, trouble with the law and pregnancy.

Schools can either assist or deter students on their path to graduation. School factors are those in control of the school or the district. Retention policies and ineffective discipline policies are among those that deter students from graduating. Conversely, close monitoring of student progress and structures designed to connect students to school increase the likelihood of graduating. Background characteristics including socio-economic status, lack of parental support, and absence of an "intact" home have also been found to increase the student dropout risk. Finally, the impact of the community was taken into account and found that societal pressure, poverty, and environmental influences may increase the likelihood that a young person will drop out.

An analysis of the research reveals that student engagement and motivation are critical to success in school. Engagement can be categorized as academic engagement, psychological engagement,

social engagement, and behavioural engagement. This analysis found that disengagement is a gradual process that begins in the early years of school. The common trend in literature found that there are many root causes of disengagement from school, and, to be adequately addressed, each requires a different approach and solution. Motivational theories support the need to create environments that promote successful behaviours. Motivational theorists can shed light on how counterproductive some educational practices could be for adolescents as well as how motivational techniques must be tailored to the audience. Educators could benefit from an understanding of how to best motivate and support students.

As a solution to the student dropout problem is sought, it is helpful to analyze programmes that are experiencing results. Programmes that take place during the school/ college day range from minimal tracking of achievement data to creating new schools that use different modalities for learning. Both community and school embedded programmes offer the possibility of creating a support system for students at risk of dropout. Matching students with the program that is most appropriate for them requires a deeper analysis of student perceptions.

Student voice can assist as educators work to solve this complex problem. Understanding students' perceptions of barriers can provide valuable information to researchers as they strive to find solutions. Consulting with students who have dropped out of a traditional high school may provide essential answers. The continuation high school programme enrols students between the ages of 15–19 who have left traditional high schools. Students attending these campuses were asked why they left the traditional high school. Traditional high schools are defined as the public school students are required to attend that serve the attendance area in which they reside unless special arrangements have been made through the district's administration program to attend another school within the district's boundaries.

Students on the continuation high school/ college campus are enrolled because they are credit deficient and need to complete courses to meet graduation requirements. Listening to these students as they reflected on their academic learning experiences and attitudes at comprehensive high schools will better inform educators on what needs to be done in a more traditional setting to help students succeed. Students in continuation high schools have persevered despite

challenges along the way. Information from the perspective of students was sought in order to analyze possible factors that may decrease the likelihood of disengagement and dropping out.

The literature reviewed indicated that understanding the problem of dropout must include an analysis of the school's culture as well as examining student characteristics. Attention should be given to the interplay of student characteristics and the school environment as these are inextricably intertwined. An isolated look at student characteristics or school culture and environment leaves both sides pointing fingers rather than working to find solutions. Listening to students in these subgroups provides added insight into their school experiences.

While we have initial research informing the dropout problem from the student's perspective, additional research could shed further light on the dropout problem. The next chapter will use information gathered in this literature review and build upon the analysis with a description of this study.

CHAPTER THREE:

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the methodology used to obtain the primary data used in this study. Dane (2000:311) defines research as "a process that involves obtaining scientific knowledge by means of various objective methods and procedures". Dane (2000:311) further explains research methodology as the logic behind research methods and techniques. In this study, quantitative approaches will be applied in identifying and measuring the objectives of the study.

3.2 Research design

There are two general approaches for a research design that are widely recognised; namely qualitative research and quantitative research (Saunders, Lewis &Thornhill, 2003:217). According to Saunders *et al*. (2003), qualitative research is conducted in a natural setting and involves a process of building a complex and holistic picture of the phenomenon of interest. Quantitative research, on the other hand, is an inquiry into an identified problem, based on testing a theory, measured with numbers and analysed using statistical techniques. Qualitative research has as its goal the understanding of a social or human problem from multiple perspectives, while the goal of quantitative methods is to determine whether the predictive generalisations of a theory hold true. The decision by this researcher to use a quantitative approach is primarily based on the following underlying assumptions:

- Development of generalisations that contribute to the theory in order to enable the researcher to predict, explain and understand the phenomenon;
- In quantitative research, the researcher attempts to remain distant and independent of what is being researched; and
- The values of the researcher will not interfere with or become part of the research.

The purpose of using this approach is to explore the major factors driving student dropouts at Gert Sibande FET College and to measure the level of association between the dropouts and the major factors driving dropouts at thiscollege.

In line with the quantitative research approach decided on, a questionnaire will be designed and a sample of Gert Sibande FET students will be requested to complete it so that the researcher could ascertain their perceptions regarding the causes of college dropouts. According to Dane (2000), quantitative methods include reviewing a substantial amount of literature in order to provide direction for the research questions. Quantitative research is based on attempts to apply the methods of natural science to the human sciences. Its strength is that it provides data that is easily quantifiable and based on reasonably objective evidence that lends itself to rigorous analysis. On the other hand, according to Sekaran (2003:181), quantitative research fails to distinguish people and social institutions from the world of nature. In addition, the reliance on instruments and procedures hinders the connection between research and everyday life.

3.3 Target population

According to Saunders, *et al.* (2003), a "population" relates to the entire set of data that is of interest to the researcher, and the "target population" refers to the group of people or objects from which the sample should be taken. Because it was not feasible to collect data for the entire statistical population, a sample, which is a representative of the population, was drawn from students of the two Gert Sibande College campuses, namely, Evander and Sibanesetfu.

3.4 Sampling strategy

Random sampling has been used in the study because it allows every member in the population to have an equal chance of being selected to participate (Saunders et al., 2003). According to Saunders et al. (2003), a sample is a selected group of participants to whom the researcher wants to generalise the findings of the study to the population from which the sample will be extracted. Sekaran (2003:369) describes the process of sampling as one that involves any procedure using a small number of items or parts of a whole population in order to make conclusions regarding the whole population. In order to avoid bias, a simple random sampling strategy has been used.

3.5 Sampling size

The sample size aims to have an appropriate number of respondents to participate in the study. In this study, the population size consisted of 1 500 students, out of which a total of 300 students will be proportionately sampled from the total populations of the two Gert Sibande campuses,

namely, Evander and Sibanesetfu. Saunders et al. (2003) state that large sampling techniques maximise the degree to which the sample represents the whole population. Subsequently, results are generalised to the population. In this study, all students were given a chance to participate and the 25 staff members out of a total of 50 staff officials within the two institutions.

3.6 Data collection instrument

Data collection instruments are developed as part of a study's total research design in order to systematise the collection of data and to ensure that all respondents are asked the same questions in the same order (Saunders et al., 2003). For this study, the researcher used a questionnaire as the data collection instrument. A questionnaire was classified into the following sections:

Section A: Collected data on individual participants' biographic and demographic profiles

Section B: Gathered data on participants' views and the extent of agreement or disagreement about individual factors identified as the drivers of college dropouts

Section C: Gathered data on participants' views and the extent of agreement or disagreement about family socio-economic factors identified as the drivers of college dropouts

Section D: Gathered data on participants' views and the extent of agreement or disagreement about institutional factors identified as the drivers of college dropouts

Section E: Gathered data on participants' views and the extent of agreement or disagreement about institutional factors identified as the drivers of college dropouts

Section F: Gathered data on participants' views and the extent of agreement or disagreement about student financial-related factors identified as the drivers of college dropouts

Section G: Gathered data on participants' views and the extent of agreement or disagreement about in lectures-related factors identified as the drivers of college dropouts

Section H: Gathered data on participants' views and the extent of agreement or disagreement about own study management-related factors identified as the drivers of college dropouts

Section I: Gathered data on participants' views and the extent of agreement or disagreement about programme-related factors identified as the drivers of college dropouts

Section J: Gathered data on participants' views and the extent of agreement or disagreement about tests and exams-related factors identified as the drivers of college dropouts

Section K: Gathered data on campus lecturers' views and the extent of agreement or disagreement about factors identified as the drivers of college dropouts

According to Sekaran (2003:137), questionnaires are among the most widely used and valuable means of data collection. A questionnaire was formulated on the basis of the objectives of the study.

3.6.1 Advantages of using questionnaires

According to Dane (2000:23), the following are the advantages of using questionnaires:

- Affordability is the primary advantage of written questionnaires because they are the least expensive means of data gathering.
- Written questionnaires preclude possible interviewer bias. In interviews, bias can be introduced by the way the interviewer asks questions and even the interviewee's responses. Such bias can be completely eliminated with a written questionnaire.
- Questionnaires permit a respondent sufficient time to consider answers before responding.
- Questionnaires can be given to many people simultaneously, that is to say, a large sample of the target population can be reached

3.7 Pilot study

A pilot study was conducted with a small number of the Evander and Sibanesetfu campuses' population which comprised students and lecturers. According to Sekaran (2003:34), a pilot study is particularly useful for uncovering problems that occur in the questionnaire document. Sekaran argues that, no matter how many times a questionnaire is redrafted, it can only be considered a usable document if it has been tested successfully in the field. A total of 20 questionnaires will be distributed to students and 10 to lecturers of the chosen campuses who would not take part in the final questionnaire survey.

Saunders *et al.* (2003:34) suggest that carrying out a pilot study also allows one to test the acceptability of the questionnaire to the target sample. The purpose of the pilot study will be to test whether the questionnaire would give the researcher the required result and whether everyone would understand the questionnaire without any difficulty. In addition, the purpose will

be to refine the items included in the questionnaire in order to ensure that no ambiguity or bias will be present and so that the measuring instrument could be fine-tuned for data collection.

Spector (2000:29) suggests that upon receiving the questionnaire back from the respondents, the researcher should examine them to determine whether it is acceptable for use in the study. The criteria for judging an instrument as unacceptable vary from study to study. Typical examples, as stated by Spector (2000:29), include the following:

- It is clear from the answer given that the respondent did not understand the task required in filling out the instrument;
- The answers show too little variance;
- The wrong sample element has filled out the instrument;
- The instrument is physically incomplete; and
- The instrument is received after an established date.

Generally, there was positive feedback from the pilot study, which implies that there were neither gaps nor flaws in the questionnaire; all the respondents understood the questionnaire and it was phrased in such a way that the respondents understood the objectives of the questions.

3.8 Administration of questionnaires

Firstly, a structured question format will be used. This type of format allows for the use of closed questions that require the respondent to choose from a predetermined set of responses or scale points. A Likert-scale format, on the other hand, involves the use of a special rating scale. It asks respondents to indicate the extent to which they agree or disagree with a series of mental-belief or behaviour-belief statements about a given subject. These approaches were chosen because they facilitate ease of analysis.

3.9 Distribution of questionnaire

The researcher will deliver the questionnaires to the participants by hand in order to ensure an effective rate of responses. All participants will be asked to return the questionnaires within two weeks.

3.10 Data analysis

Data analysis is the process of converting data into information (Saunders et al., 2003). The primary focus of data analysis consists of seeking answers to specific questions. Accordingly, the questionnaire was designed in such a manner that it was an effective tool for obtaining, analysing and reporting on students' and lecturers staff's views about causes and effects of high college dropouts. According to Saunders et al. (2003), once all the questionnaires have been collected, data reduction should take place. This is where data is summarised and simplified by focusing selectively on some parts of the data. Thereafter, data are analysed by segmenting them into different categories, and from there they are coded. Responses will be analysed using descriptive statistics in order to investigate the representativity of the sample.

The data collected in by the questionnaire was analysed using Principal Component Analysis (PCA) in an effort to determine the composition of factors responsible for college dropouts. In order to determine and empirically estimate the nature and extent of association between the college dropouts (dependent variable) and the explored independent variables, multiple stepwise regression analysis techniques were used for inferential purposes in this study.

3.11 Validity and reliability

The term "validity" refers to the extent to which the research findings accurately represent what is really happening in the situation, as well as to the truthfulness of the findings. An effect or test is valid if it demonstrates or measures what the researcher thinks or claims it does (Dane, 2000:256). To ensure validity, questionnaires will be pre-tested before widespread distribution and the questions will be phrased in such a way that the respondents understood the objective of the question. Factor analysis (PCA) was utilised to determine the construct validity of the factors involved.

Cozby (2004:90) mentions two types of validity. Face validity, which deals with the reflection of the content being measured and criterion oriented validity where scores are used to measure. Under criterion-oriented validity, he differentiated four types:

- Predictive validity: scores that measure predictable behaviour.

- Concurrent validity: people and groups known to differ on the constructs score differently on the measure.

- Convergent validity: scores on the measure are related to the measures of the same score.

- Discriminant validity: scores on the measure are not related to other measures that are theoretically different.

Overall, the structural validity of the measurement tools will be examined using factor analysis; through which total correlation analysis of items will be evaluated. Prior to conducting factor analysis, the Kaiser-Meyer-Olkin (KMO) analysis will be undertaken to determine suitability of the size of sampling to factor analysis. The KMO value will be used to indicate whether the gathered questionnaire data will be suitable for factor analysis and principal component analysis. Furthermore, the Bartlett's test of sphericity of the research survey items will be examined to determine whether factor analysis could sufficiently be performed on the data. Additionally, the scale will be examined to establish whether the items will not arise to an identity matrix. The total declared variance computed will also be analyzed to determine the cumulative total variance explained by selected components based on the initial eigenvalues.

Reliability, on the other hand, is concerned with the findings of the research and relates to the credibility of the findings (Sekaran, 2003:90). For a research study to be accurate, its findings must be reliable and valid (Saunders *et al.,* 2003:299). Reliability means that the findings would be consistently the same if the study will be done over again. The researcher will assess the reliability of each question rather than of the questionnaire as a whole. According to Blumberg, Cooper and Schindler (2005:122), data collection instruments are usually pre-tested and "debugged" to assure the validity and reliability of the research study. Often, a sample is systematically divided into two, and half is given the same questionnaire to complete. If the results from each half are similar, the questionnaire is said to have split-half reliability (Dane, 2000:256).Theinternal reliability of the factors used in this research was determined by means of the Cronbach Alpha coefficient.

3.12 Ethical considerations

Apart from instrumentation and procedural concerns, collecting data from people raises ethical concerns. These include avoiding harm to people, having due regard for people's privacy, respecting people as individuals, and not subjecting people to unnecessary research (Saunders *et al.*, 2003: 145). Sekaran (2003:90) states that, "when people are involved as subjects, respondent or participants, the proposal should specify how their human and civil rights will be protected, with reference to obtaining informed consent, ensuring privacy, obtaining voluntary consent and ensuring their legal and cognitive competency". For example, a study dealing with the service provision of a particular local municipality should be done in a careful and sensitive manner as it could become a controversial issue.

The researcher, therefore, obtained consent from all respondents and participants, and everyone involved were briefed prior to conducting the research. The researcher did not influence the respondents in any way and the findings were presented in a truthful manner. The researcher did not manipulate any situation and/or condition; people simply answered the questions. In order to avoid harm to people, the researcher had to be aware of potential psychological factors such as ensuring anonymity of respondents.Participants completed the questionnaires anonymously in order to ensure anonymity.

3.13 Limitations of the study

As indicated by Gleshe and Peshkin (1992:88-89) there is a resistance by respondents to answer a questionnaire. The researcher also encountered the problem. Some questionnaires distributed to participants were not completed and some not returned. The study was limited to students of the two Gert Sibande FET College campuses, namely, Evander and Sibanesetfu situated in Mpumalanga Province.

3.14   Elimination of bias

According to Saunders *et al*. (2003:232), there are two main causes of bias. These are non-response and inappropriate sampling methods. Non-response is a problem to the extent that people who elect to respond to a survey may differ from those who do not. To eliminate bias in the sampling process, a small sample will be selected randomly, that is, each element of the

sampling frame had the same probability of being selected, or if for some reason the probabilities differed, this will be taken into account during the analysis stage.

3.15 Conclusion

This chapter provided an overview of the research process that was followed by the researcher when conducting the research and collecting the data for the study; it also highlighted the important processes and procedures that will be adopted during the study. The next chapter focuses on the statement of findings, interprets and discusses the research results.

CHAPTER FOUR:

ANALYSIS AND INTERPRETATION OF DATA

4.1 INTRODUCTION

In the previous chapter, the research design and methodology were discussed. In this chapter, the following aspects will be discussed; namely:

- Validity and reliability of the research instrument; in which validity addresses the aspect of whether one measures what he or she really intends to measure and reliability addresses the consistency and dependability of measures (Rose & Sullivan, 1996:19);

- Descriptive statistics; principal component analysis and ranking of the nine sub-dimensions of aspects enhancing college dropout; and

- Multiple regression analysis to find the best predictors of student dropouts.

4.2   DESCRIPTIVE STATISTICS

Table 4.1:   Frequency of gender (A1)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	193	56.9	74.8	74.8
	Male	65	19.2	25.2	100.0
	Total	258	76.1	100.0	
Missing	System	81	23.9		
Total		339	100.0		

According to the data in Table 4.1, 74.8% of respondents were female students with only 25.2% male students. The ratio of actual female to male students should be closer to 1 as in 2011 there was 51% female students in FET colleges in the Gert Sibande region. The sample had almost three times as many females as males. This sample is thus not representative of gender at the FET college campuses surveyed.

Table 4.2: Frequency of respondents (A2)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Student	258	76.1	100.0	100.0
Missing	System	81	23.9		
Total		339	100.0		

The annual report of 2011 indicated that there were 7360 students enrolled at colleges in the Gert Sibande region. The sample of 258 students constitutes 3.5% of the entire population. From the target sample of 300 students surveyed in this study, the valid responses of 258 students accounted for 86 percent. From the sampling statistical perspective, the 86 percent valid responses obtained represent a significant proportion for generalization of the results.

Table 4.3: Frequency of marital status (A4)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	178	52.5	69.0	69.0
	Married	73	21.5	28.3	97.3
	Divorced	3	.9	1.2	98.4
	Widowed	3	.9	1.2	99.6
	Cohabitating	1	.3	.4	100.0
	Total	258	76.1	100.0	
Missing	System	81	23.9		
Total		339	100.0		

From the results presented in Table 4.3 above, more than half (69.0 percent) of the respondents are single; while 28.3 percent (n = 73) are married. The divorced and widowed respondents represent 0.9 percent each while those cohabitating represent 0.3 percent of the sample used.

Table 4.4:   Frequency of highest educational qualification (A5)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Lower than grade12	135	39.8	52.3	52.3
	Grade12	96	28.3	37.2	89.5
	Post-school diploma/certificate	21	6.2	8.1	97.7
	Diploma/certificate +post graduate certificate/diploma	5	1.5	1.9	99.6
	Bachelors degree	1	.3	.4	100.0
	Total	258	76.1	100.0	
Missing	System	81	23.9		
Total		339	100.0		

From the 258 student respondents surveyed in this study, approximately 52.3 percent (n = 135) have educational qualifications that are lower than Grade 12; while 37.2 percent have Grade 12 qualifications and only 8.1 percent of the participants hold post-school diploma or certificate. Respondents with Diploma and Bachelor's degree educational qualifications represent 1.9 percent and 0.4 percent respectively.

Table 4.5:   Frequency of field of study (A7)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Engineering/ICT/Science	125	36.9	48.4	48.4
	Business/Commercials	133	39.2	51.6	100.0
	Total	258	76.1	100.0	
Missing	System	81	23.9		
Total		339	100.0		

Results from Table 4.5 above indicate that more than half (51.6 percent) of the surveyed respondents enrolled for business/commercial courses; while the remaining 48.4 percent are studying Engineering/ICT/Science courses.

4.3   INFERENTIAL STATISTICS

The questionnaire had nine sections, which made use of scaled interval responses to probe the perceptions of students as to the extent that they believed that the items posed enhanced dropout from the College. To no extent was anchored by 1 and to a very large extent by 5 with to a moderate extent being represented by 3. In an effort to reduce the large number of variables to a more manageable size, while retaining as much of the information as possible, this researcher made use of the factor analytic procedure (Field, 2009:628). It would be convenient to discuss the factor analysis of each of the sections separately.

4.3.1   Factor analysis of Section B

There are numerous factors internal to an individual that could play a role in whether he/she is successful in an academic setting or whether he/she will decide to terminate their studies. Section B contained six items. The data contained in the responses to the items were subjected to a Principal Component Analysis (PCA) with varimax rotation using SPSS 21.0. The Kaiser-Meyer-Olkin (KMO) value of 0.875 and significant Bartlett's sphericity value ($p<0.0005$ indicated that the items could be reduced to a more parsimonious number of factors. One factor resulted which explained 59.30% of the variance present. It had an Alpha Cronbach reliability coefficient of 0.855 and is represented in Table 4.6 below.

Table 4.6:   The items, factor loadings and mean scores contained in aspects relating to the individual student (FB)

FB-Aspects related to the individual student ($\alpha=0.855$)		
Ite m	**Description: To what extent do you believe that the following enhance student dropout in FET**	**Loading**	**Mean**
B4	Programme enrolled for is not first choice	.852	3.24
B1	Poor successive academic achievement	.836	3.30
B3	Different expectations between School and College	.829	3.29
B2	Low lesson attendance	.801	2.92
B5	Pressure from peers.	.685	3.45
B6	Drug abuse (including alcohol) by students	.578	3.19
Average			3.23

The pressure from peers' item had the highest mean score of 3.45 indicating that the respondents felt that peer pressure enhanced College dropout to a moderate extent only. However, this item had the highest mean score in the factor and hence it seems as if the respondents do not believe that aspects inherent to themselves are responsible for termination of their studies. This could be indicative that students have an external locus of control and tend to apportion blame to factors outside of themselves. The lowest mean score of 2.92, which relates to low lesson attendance, also elicits a response of to a moderate extent only.

The distribution of the data in this factor is represented via a histogram and box-plot as shown in figure 4.1
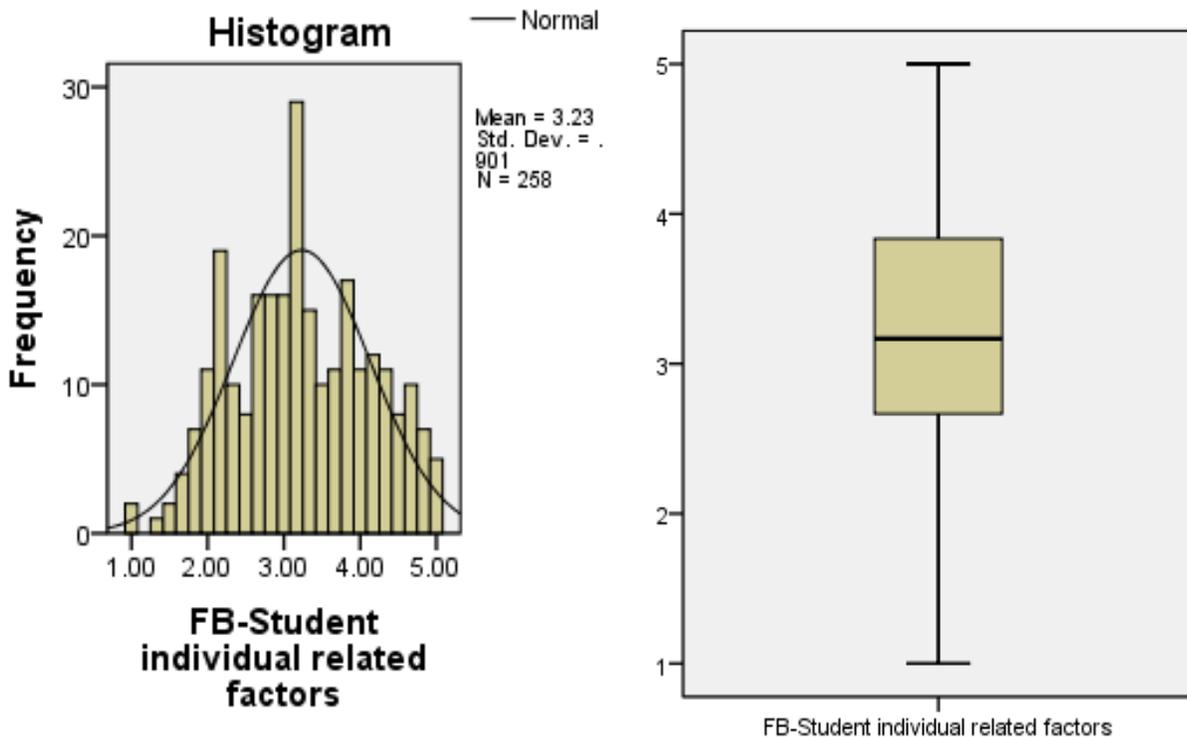
Figure 4.1: **Histogram and box plot showing the data distribution in aspects related to the individual student (FB)**

The mean score of 3.23 with a mode of 3 and median of 3.17 indicates a normal distribution of data. Respondents thus believe that the items posed in aspects relating to the individual student enhances College dropout to a moderate extent.

4.3.2 Factor analysis of Section C

There were five items present in Section C which used the same scale to elicit responses from the students. The PCA with varimax rotation had a KMO value of 0.84 and significant Bartlett's sphericity which indicated that the items could be further reduced. One factor which explained 65.79% of the variance present, resulted. It was named aspects related to the Socio-Economic-Status of the family and had a reliability coefficient of 0.86. The items contained in this factor are provided in Table 4.7

Table 4.7:   The items, factor loadings and mean scores contained in aspects relating to the SES of the family (FC)

FC - Aspects related to Family SES (α=0.860)			
Item	**Description: To what extent do you believe that the following enhance student dropout in FET**	**Loading**	**Mean**
C2	Family size and dependence ratio	.893	3.26
C1	Parents' educational background/qualifications	.806	3.32
C3	Family sustainable level of income	.801	3.27
C5	Lack of support from parents/guardians	.792	3.28
C4	Family members' occupation or employment status	.756	2.91
Average			3.21

The parents' educational background obtained the highest mean score of 3.32, which indicates a moderate extent of agreement. The lowest mean score of 2.91 was obtained on the item family members' occupation or employment status. In retrospect this question should have been split into two different questions, as one's occupation is clearly different from whether one is employed or not. The distribution of the data is provided in figure 4.2.
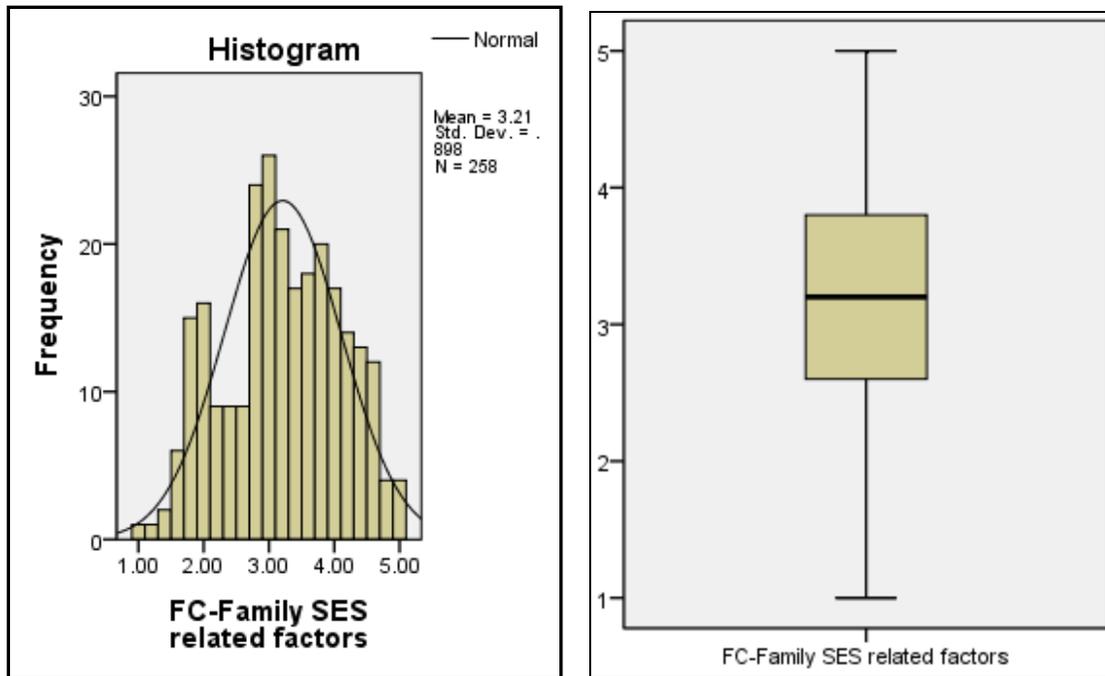
Figure 4.2: **Histogram and box plot showing the data distribution in aspects related to the SES of the family (FC)**

Data are normally distributed as indicated by the mean of 3.21 and median of 3.20. All of the items had a mode of 3 indicating that the majority of respondents believed that family SES enhanced College dropout to a moderate extent.

4.3.3 Factor analysis of Section D

There were five items which probed the perceptions of the students with respect to the extent that they believed that aspects related to the Institution enhanced dropout from FET colleges in the Gert Sibande region of Mpumalanga. The PCA procedure had a KMO of 0.81 and Bartlett's sphericity of $p<0.0005$. One factor resulted which could explain 57.57% of the variance present, which was named aspects related to the institution. The items, their factor loadings and mean scores are given in Table 4.8.

Table 4.8: The items, factor loadings and mean scores contained in aspects relating to the Institution (FD).

FD- Aspects related to the Institution (α=0.798)			
Item	Description: To what extent do you believe that the following enhance student dropout in FET	Loading	Mean
D5	Poor competence of lecturers	.835	3.21
D2	Unavailability of extra-curricular activities	.807	3.07
D3	Lack of recognition of NVC qualification by employees	.742	3.33
D1	Poor college student monitoring mechanisms	.702	3.43
D4	Absenteeism by teachers/lecturers	.698	2.31
Average			3.07

The item with the highest mean score (3.43) was poor college monitoring mechanisms. This indicates that respondents believe that poor college monitoring mechanisms enhance college dropout to a moderate extent only. However, they do give this item the highest mean score in the factor. This could again be indicative of a low locus of control as one should be personally responsible for regular attendance of lectures and not blame poor student monitoring mechanisms. The absenteeism of lecturers (2.31) had the lowest mean scores and respondents' perceived this item as only enhancing student dropout to a small extent. The mode for this item was 1 indicating to no extent at all. This could mean that the absenteeism of lecturers was minimal or that even if they were present this was not seen as something that enhances student dropout. The distribution of data is given in figure 4.
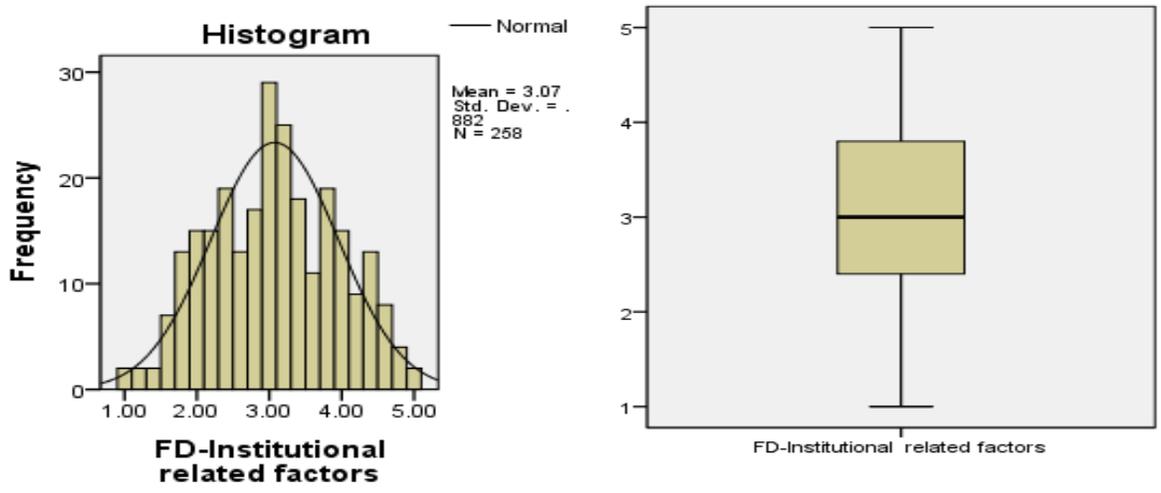
Figure 4.3: **Histogram and box plot showing the data distribution in aspects related to the Institution (FD)**

The histogram and box plot both indicate a normal distribution of data. The mean score of 3.02 with a median of 3 clearly indicates that the majority of respondents believed that Institutional factors only enhance College dropout to a moderate extent.

4.3.4 Factor analysis of Section E

Section E contained six items, which probed the extent of belief with respect to aspects relating to the facilities present at the campuses attended. The initial PCA procedure indicated that item E1 should be removed as it has a Measure of Sampling Adequacy (MSA) of less than 0.6. On removal of this item; the KMO increased to 0.822 with a significant Bartlett's sphericity ($p<0.0005$). One factor resulted which explained 65.18% of the variance present. The items, their factor loadings and mean scores are given in Table 4.9

Table 4.9: The items, factor loadings and mean scores contained in aspects relating to the facilities (FD).

	FE - Aspects relating to facilities (α=0.855)		
Item	**Description: To what extent do you believe that the following enhance student dropout in FET**	**Loading**	**Mean**
E3	Finances for printing of assignments, portfolios and so forth	.893	3.62
E4	Unavailability of textbook on time	.887	3.69
E5	No access to a computer and other resources	.878	3.60
E6	Class handouts are not made available on time	.875	3.66
E1	Lack of academic support resources	.371	3.29
Average			3.57

The item with the highest mean score (3.69) related to textbooks not being available on time which was perceived as enhancing student dropout to a moderate tending to a large extent. It would appear as if the delivery of textbooks still remains a problem in Mpumalanga. However, it could also serve as a convenient mechanism to escape from personal responsibility and again points to students having an external locus of control as regular attendance of lectures and use of the library could offset the unavailability of textbooks. The lack of academic support had the lowest mean score (3.29) as respondents believed that this only enhanced student dropout to a moderate extent. The distribution of the data in this factor is presented in figure 4.4.
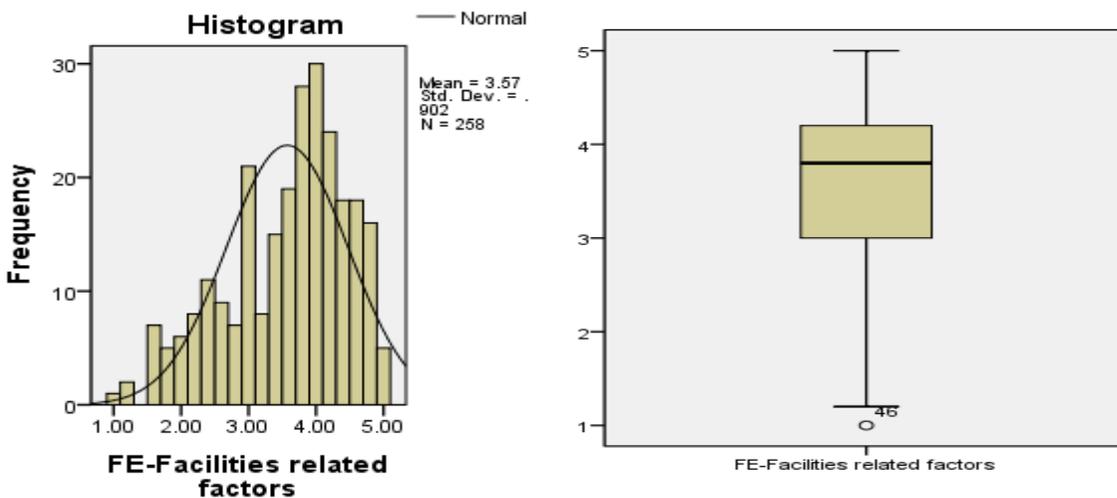
Figure 4.4:   Histogram and box plot showing the data distribution in aspects related to facilities (FE)

The mean score of 3.57 with a median of 3.80 indicates that data are slightly negatively skew. Four of the six items had a mode of 4. All these values indicate that the majority of the respondents had the perception that aspects related to facilities enhanced student dropout to a moderate tending to a large extent.

4.3.5   Factor analysis of Section F

The items in Section F asked respondents six questions related to the influence of finances on student dropout in this region of Mpumalanga. The initial PCA with varimax rotation resulted in two first-order factors. On subjecting these two first order factors to another PCA procedure that KMO of 0.78 and Bartlett's sphericity of $p<0.0005$ indicated that the two factors could be further reduced. One second-order factor resulted which explained 70.68% of the variance present with a Cronbach reliability coefficient of 0.78. The items present in the factor, their factor loadings and mean scores are provided in Table 4.10.

Table 4.10:   The items, factor loadings and mean scores contained in aspects relating to student finances (FF2.0).

FF2.0 - Aspects related to student finances (α=0.780)			
Item	**Description: To what extent do you believe that the following enhance student dropout in FET**	**Loading**	**Mean**
F4	Need to support the family	.841	3.73
F5	Bursary money comes late in the year	.839	3.73
F2	Parents/guardians being unemployed	.826	3.69
F6	Difficulty in getting a bursary/loan to cover accommodation and travel costs	.810	3.63
F1	Difficulty in getting a bursary to cover college fees	.776	3.78
F3	Having a part-time job to earn sufficient funds	.720	3.63
Average			3.70

The item with the highest mean score (3.78) related to the difficulty in getting a bursary to cover college fees and the respondents believed that this item enhanced college dropout to a moderate tending to a large extent. The item with the highest factor loading (0.841) was item F4 relating to the need to support the family. The factor loading is an indication of the substantive importance of the item (Field, 2009:644) and hence the need to support the family (F4) is the item which is most representative of this factor. The data distribution of this factor is shown in figure 4.5.
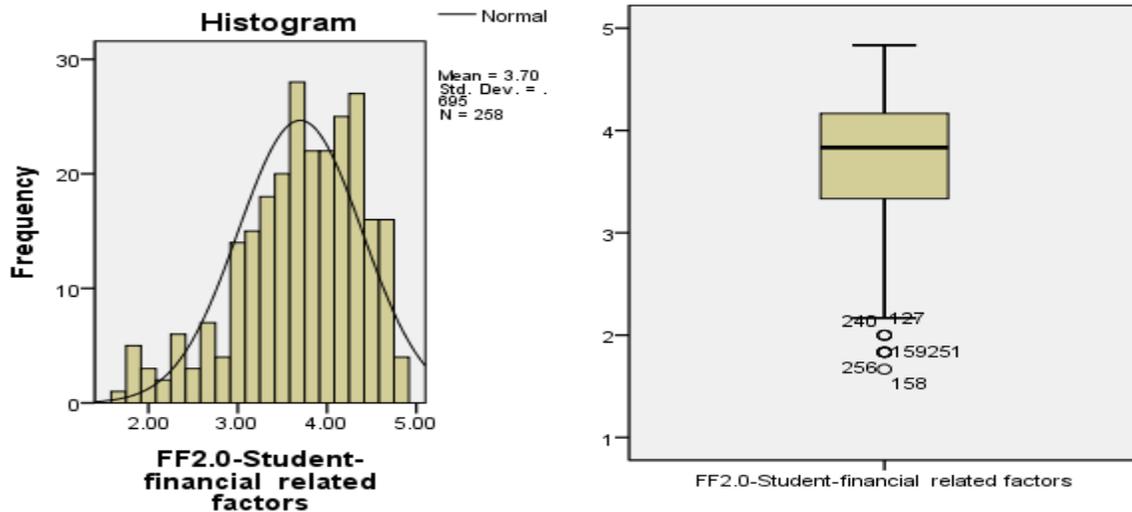
Figure 4.5: **Histogram and box plot showing the data distribution in aspects related to student finances (FF)**

The mean score of 3.70 with a median of 3.75 as given by SPSS 21.0 indicates that the respondents believed that student finances influence student dropout to a large extent. The mode of 4 for all the items further confirms this. The box plot indicates numerous outliers present and as they influence the mean score their removal from the data would result in a mean closer to 4. However, the sample size was not so large and removal of these respondents would influence all factors. In addition, respondent number 158 recorded a score of 1 indicating that she believed that student financial factors, to no extent, enhanced student dropout. It is possible that this student has an internal locus of control and hence is not inclined to blame factors outside her for dropping out of college.

4.3.6 Factor analysis of Section G

Section G of the questionnaire posed six questions that were related to the extent that lecturers could enhance college dropout. The PCA procedure with varimax rotation had a KMO value of 0.862 and Bartlett's sphericity of p<0.0005 indicating that the six items could be reduced to a more parsimonious number of factors. One factor resulted which explained 56.0% of the variance present. It had a Cronbach reliability of 0.836 and was named aspects related to lecturers. The items, their factor loadings and mean scores are given in Table 4.11 below.

Table 4.11:   The items, factor loadings and mean scores contained in aspects relating to lecturers (FG).

FG- Aspects related to lecturers (α=0.836)		
Item	**Description: To what extent do you believe that the following enhance student dropout in FET**	**Loading**	**Mean**
G2	Not asking questions in class when I do not understand something	.836	3.73
G6	The size of one or more of the classes makes it difficult for me to learn.	.801	3.69
G1	Lack of preparation by lecturers before attending class	.793	3.73
G3	Lack of concentration for the duration of all the lectures	.736	3.63
G4	Lecturers not explaining the work in sufficient detail	.708	3.76
G5	Not understanding the lecturers	.590	3.65
Average			3.70

Item G4 "lecturers not explaining the work in sufficient detail had the highest mean score of 3.76 with a modal value of 4. This indicates that the majority of students believed to a large extent that lecturers' inability to explain the work in detail, enhanced student dropout in the sample concerned. The distribution of data is provided in figure 4.6.
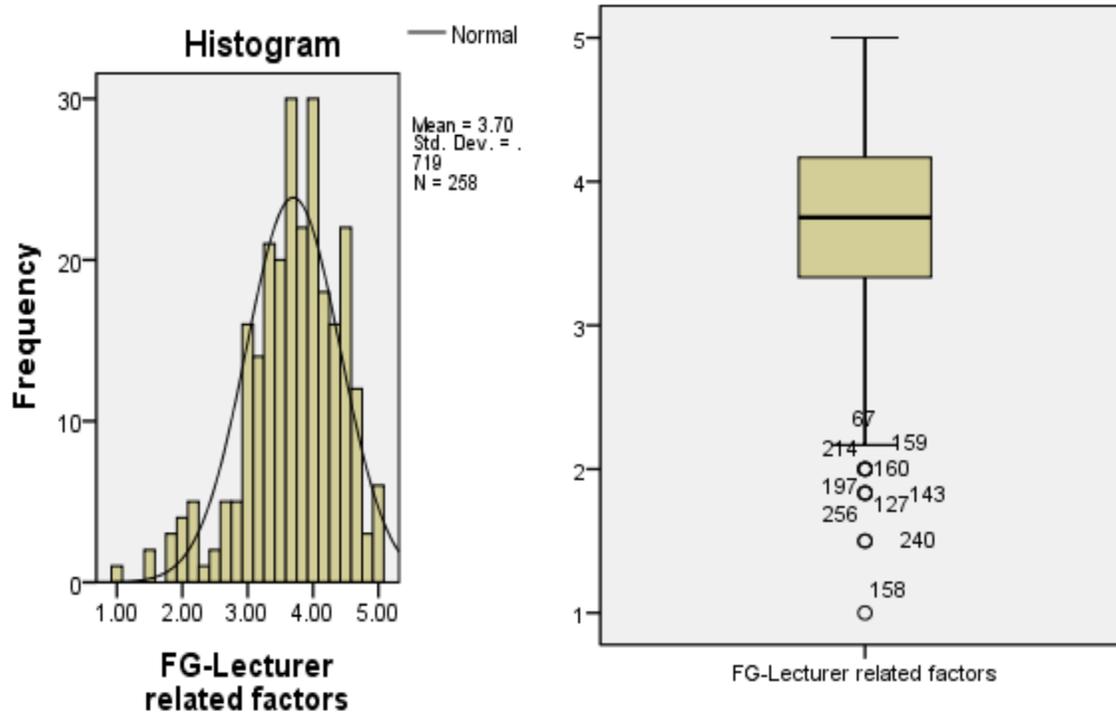
Figure 4.6: **Histogram and box plot showing the data distribution in aspects related to lecturers (FG)**

The mean score of 3.70 and median of 3.75 indicates that the majority of students in the sample tended to believe to a large extent that aspects related to lecturers enhanced student dropout. Data was thus slightly negatively skewed. The outliers, however, indicate that numerous respondents believe this to be so to a small extent only. Respondent 158 does not believe this at all as she recorded a value of 1. However, such respondents only make out a small percentage as for example in item G4 where only 8.9% of the respondents believed the statement to no or to a small extent only. It is possible that only a minority of students have an internal locus of control and do not blame factors outside themselves for terminating their studies.

4.3.7 Factor analysis of Section H

There were six items that probed the perceptions of students regarding the influence of study habits on college dropout. The PCA procedure with varimax rotation had a KMO value of 0.827 and Bartlett's sphericity of $p<0.0005$. One factor which explained 63.04% of the variance resulted from this procedure. The items, their factor loadings and mean scores obtained are presented in Table 4.12.

Table 4.12: The items, factor loadings and mean scores contained in aspects relating to own study methods (FH).

Item	Description: To what extent do you believe that the following enhance student dropout in FET	Loading	Mean
FH- Aspects related to own study methods (α=0.881)			
H4	Not being able to concentrate when studying	.834	3.81
H6	Not being able to set realistic study goals for myself to achieve	.820	3.70
H3	Not having sufficient knowledge on how to draw up a study plan	.788	3.64
H1	Not being able to stick to a study plan	.786	3.84
H2	Not finding a suitable study group.	.780	3.86
H5	Not being able to comprehend technical phrases	.753	3.67
Average			3.75

Item H1, not finding a suitable study group, had the highest mean (3.86) indicating that this enhanced student dropout to a large extent. Not being able to stick to a study plan and a lack of concentration were also items, which had modal values of 4. However, such reasons are probably true of many students everywhere. The data distribution is given in figure 4.7 below.
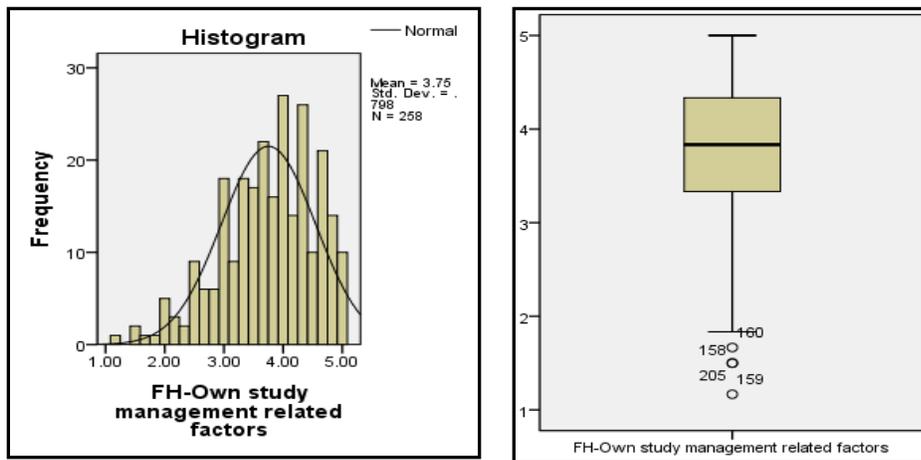
Figure 4.7: Histogram and box plot showing the data distribution in aspects related to management of own study methods (FH)

The mean of 3.75 and median of 3.80 indicates that the majority of students believed to a large extent that the poor management of own study methods enhanced student dropout in the sample investigated. Good management of study methods relates more to one's individual personality and aspects such as perseverance and does not necessarily depend on cognitive ability.

4.3.8 Factor analysis of Section I

Section I of the questionnaire contained six statements relating to the understanding of subject content. However, the correlation matrix associated with the PCA procedure indicated that item 16 had a low correlation with the others and was removed from the analysis. The resulting KMO of 0.788 and Bartlett's sphericity of $p<0.0005$ indicated that the remaining five items could be further reduced. One factor resulted which explained 61.29% of the variance present. It had a Cronbach reliability of 0.839. The items, their factor loadings and their mean scores are given in Table 4.13.

Table 4.13: **The items, factor loadings and mean scores contained in aspects relating to subject comprehension (FI)**

FI- Aspects related to the subject comprehension ($\alpha=0.839$)		Loading	Mean
Item	**Description: To what extent do you believe that the following enhance student dropout in FET**	**Loading**	**Mean**
I4	Not having exposure to workplace environment	.875	3.73
12	Inability to summarise the key aspects of the subject content	.834	3.71
I1	The workload is too large for me to cope with	.829	3.54
I3	Inability to understand specific key concepts inmy discipline	.735	3.63
15	Not understanding the prescribed textbooks	.613	3.70
Average			3.66

Item I4 had the largest mean score and students indicated that they believed, to a large extent that not having exposure to the workplace environment, enhanced college dropout. Exposure to their working environment could give them vital experience and allow them to become familiar with many of the terms and concepts used in their field of study. As such it could assist with the

comprehension of subject content. The distribution of the data in this factor is provided in figure 4.8
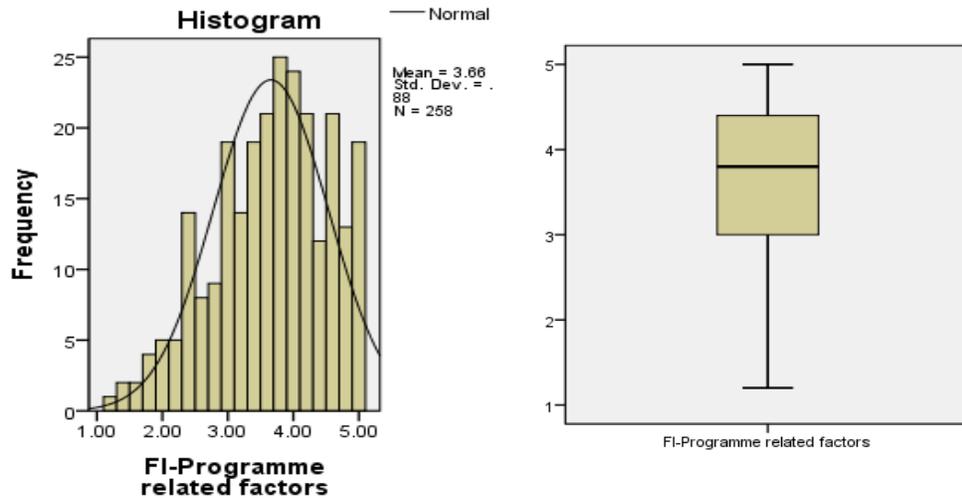

Figure 4.8: **Histogram and box plot showing the data distribution in aspects related to subject comprehension (FI)**

The mean score of 3.66 and median of 3.80 indicate that most of the respondents believed to a large extent that the inability to comprehend subject content enhanced college dropout. Thus the representation of data was slightly negatively skew.

4.3.9 Factor analysis of Section J

The seven items posed in Section J of the questionnaire all related to the students ability to achieve good marks in tests and examinations. The PCA procedure with varimax rotation had a KMO value of 0.897 and a significant Bartlett's sphericity of $p<0.0005$. These values indicated that the items could be reduced to fewer and more manageable factors. One factor resulted which explained 57.32% of the variance present. It had a Cronbach reliability of 0.873 and contained seven items. The items, their factor loadings and mean scores are displayed in Table 4.14.

Table 4.14: The items, factor loadings and mean scores contained in aspects relating to tests and examinations (FJ).

Item	Description: To what extent do you believe that the following enhance student dropout in FET	Loading	Mean
FJ- Aspects related to tests and examinations (α=0.873)			
J6	Not being able to remember the subject content that I learnt	.826	3.31
J2	Inability to work out how much time to spend on each question in the examinations	.796	3.21
J5	Test/examination anxiety	.789	3.29
J1	The difference between my assignment marks and my test/exam marks	.776	3.30
J4	The poor marks obtained in the practical work	.712	3.14
J3	The poor marks obtained in the theoretical work	.706	3.32
J7	The failure of a subject	.685	2.94
Average			3.22

Item J3 had the highest mean score of 3.32 indicating that the majority of students believed that the poor marks obtained in theoretical work enhanced student dropout to a moderate extent. However, the item with the highest factor loading was item J6 that referred not being able to remember subject content that had been learnt. One's ability to achieve well in tests and examinations is strongly correlated with memory and hence with the ability to progress academically. The distribution of the data is provided in figure 4.9.
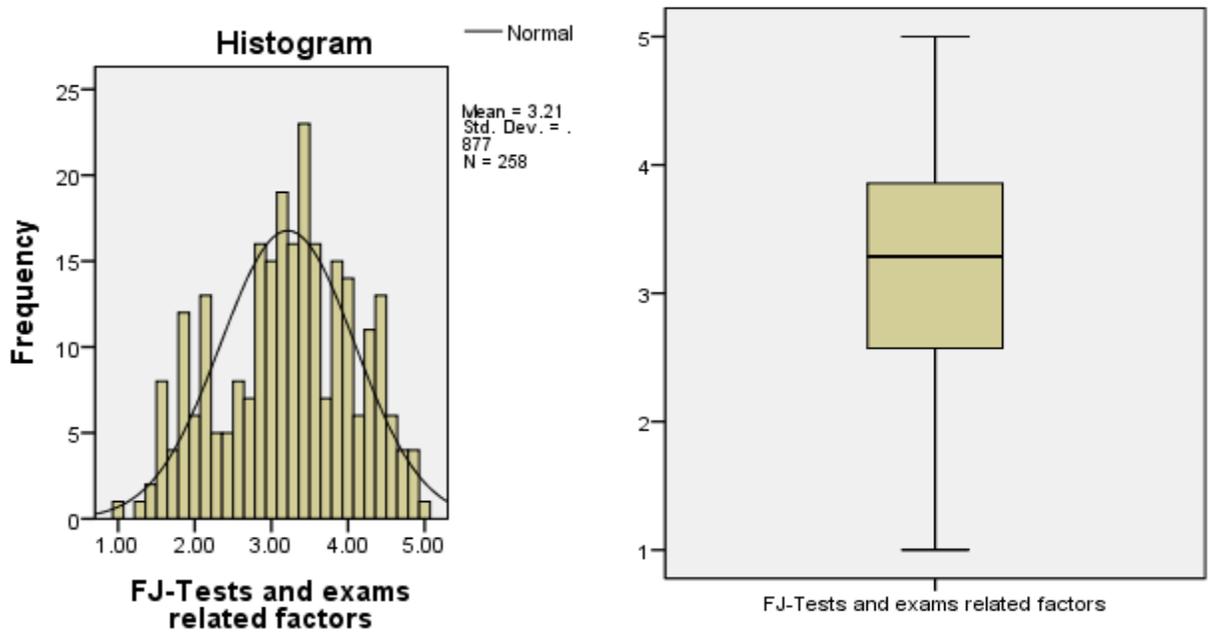
Figure 4.9:   **Histogram and box plot showing the data distribution in aspects related to tests and examinations (FI)**

The mean of 3.21 and median of 3.29 indicate normality of data distribution. The respondents believed to a moderate extent that tests and examinations lead to enhanced student dropout in the colleges sampled. However, academic achievement cannot be seen separately from tests and examinations as all colleges use these assessments methods to track academic progress and extent of learning that has occurred.

When these nine theoretical factors that influence college dropout were subjected to a second-order PCA with varimax rotation, only one factor resulted. It contained 51 items and had a Cronbach reliability of 0.890. It had a mean of 3.46 and a median of 3.50 indicating normal distribution of data. It was named perceived aspects of college dropout in the FET colleges in the Gert Sibande region of Mpumalanga.

4.4   SYNTHESIS OF STUDENT PERCEPTIONS OF ASPECTS ENHANCING COLLEGE DROPOUT

The factor perceived aspects of college dropout in FET colleges in the Gert Sibande region is composed of nine underlying sub-dimensions. These are aspects relating to:

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- the individual student;

- family SES;

- the Institution;

- the facilities;

- student finances;

- lecturers;

- management of own study methods;

- subject comprehension; and

- tests and examinations

All nine of the sub-dimensions had scales that were reliable enough to be used for further testing. If one uses the means model to arrange the factor mean scores from the highest to the lowest mean scores then one could conclude that the sub-dimension with the highest factor mean was perceived to be the one which enhanced college dropout to the greatest extent (Table 4.15).

Table 4.15:   Ranking of the nine sub-dimensions of aspects enhancing college dropout

Factor	Mean score	Ranking
Management of own study methods (FH)	3.75	1
Lecturer related (FG)	3.70	2
Student finances (FF2.0)	3.70	2
Subject comprehension (FI)	3.66	4
Facilities (FE)	3.57	5
Individual aspects (FB)	3.23	6
Tests and examinations (FJ)	3.22	7
Family SES (FC)	3.21	8
Institutional aspects (FD)	3.07	9

The means model where one makes use of deviation from the mean value thus indicates that in the sample of data, the students' perceptions are that the management of their own study methods is the factor which enhances student dropout the most. As such, it should rather be named the mismanagement of own study methods. According to their perceptions, lecturer related aspects

are the second most important factor while institutional aspects only enhances dropout moderately.

However, the mean is not necessarily the most appropriate predictor of which factors best enhance student dropout. The linear line which best fits the sample data could give a better fit of the data and as such multiple linear regression is more suitable.

4.5 USING MULTIPLE REGRESSION TO FIND THE BEST PREDICTORS OF STUDENT DROPOUT

The outcome variable is the aspects of college dropout in FET colleges in the Gert Sibande region and the nine sub-dimensions are the predictors in the equation.

$Y_i = (b_0 + b_1 X_1 + b_2 X_2 + b_3 X_3 + ...b_9 X_9) + Error$. Where b_0 is the coefficient of the first predictor (X_1) and b_2 is the coefficient of (X_2) and so on up to the ninth predictor. Using multiple stepwise regression, the SPSS 21.0 programme provided nine possible models of which model 7 gave the best fit of the data. The model summary gave the following results:

[Adjusted R^2=0.980; Change in F ratio (ΔF (1,250) = 351.72; p<0.0005]. The ANOVA results indicates that the model was a significant fit of the data overall. The ANOVA results were

[F (7,250) = 1818.97; p<0.0005]. The results of model 7 are given in Table 4.16.

Table 4.16: The coefficients produced for model 7 by SPSS21.0

Factor	Unstandardised Coefficients		Standardised Coefficients	t-value	p-value
	B	Std. error	Beta (β)		
Aspects related to student finances (FF2.0)	.175	.008	.283	21.889	.000
Aspects related to the individual student (FB)	.156	.007	.325	23.088	.000
Aspects related to subject comprehension (FI)	.108	.005	.221	22.488	.000
Aspects related to facilities (FE)	.102	.005	.212	18.642	.000
Aspects related to tests and examinations (FJ)	.129	.005	.261	27.038	.000
Aspects related to own study management (FH)	.155	.006	.287	25.087	.000
Aspects related to the Institution (FD)	.138	.007	.282	18.754	.000

The data in Table 4.16 indicate that all the coefficients (B) are positive and thus as each one increases so does the output or the college dropout in the Gert Sibande region. However, the standardised versions of the B values are not dependent on the units in which they were measured and hence they are directly comparable (Field, 2009: 239). As such they provide a better insight into the importance of the predictor in the model. The factor with the largest standardised beta value (β = +0.325) was aspects related to the individual student (FB) and hence it can be regarded as the most important predictor in the model. Examples of individual related factors can be found in Table 4.6 and includes aspects such as poor successive academic achievements and low lesson attendance. Aspects related to the management (mismanagement) of study methods (FH) are the next most important predictor (β = +0.287). Aspects relative to this factor can be found in Table 4.12 and included lack of concentration, not being able to follow a study plan and poor comprehension of technical concepts. Both factors B and H are

related to the student as an individual and hence the bets predictors of dropout from the colleges in the sample stem from the individual with own abilities and personality characteristics.

Aspects related to student finances (FF2.0) with a beta value of 0.283 and aspects related to the institution with a beta vale of 0.282 indicated that they had virtually the same importance in predicting student dropout. However, the regression model did not include aspects related to lecturers whereas the means model indicated that it was placed second in order of factor means.

It would thus seem as if the ideographic dimension in a social system such as FET colleges plays the most important part in student dropout with the nomothetic dimension contributing to a smaller extent. In this regard, the personality, innate ability and the motivation to work hard despite contextual circumstances all play a role in academic achievements. Students with an internal locus of control who do not easily blame factors outside themselves for poor achievements are more likely to complete their studies and not drop out of college.

4.6   SECTION K OF THE QUESTIONNAIRE – CAMPUS STAFF

Campus staff was asked to complete the biographical information applicable to them and   the last section of the questionnaire only, namely Section K. Section K asked them to give their belief of the extent to which the seven factors listed, enhanced student dropout in FET colleges in the Gert Sibande region of Mpumalanga. Table 4.17 provides the frequencies of the gender of the respondents.

Table 4.17:   Frequency of the gender of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	11	23.4	23.9	23.9
	Male	35	74.5	76.1	100.0
	Total	46	97.9	100.0	
Missing	System	1	2.1		
Total		47	100.0		

Given the nature of staff distribution in most colleges with respect to gender, results in Table 4.17 above provide a true reflection that male lecturers are more than female lecturers, technically due to the nature of courses and subjects taught at the surveyed colleges. From the sample of 50 staff members surveyed, only 47 of the questionnaires were duly completed; thus yielding the response rate of 94 percent. From this sample, 23.9 percent are female staff while the remaining 76.1 percent are male staff.

4.6.1 Frequency of post designations (A2)

Table 4.18: Frequency of the posts occupied by the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Lecturer	26	55.3	56.5	56.5
	Registration official	4	8.5	8.7	65.2
	Curriculum manager	7	14.9	15.2	80.4
	Campus manager	9	19.1	19.6	100.0
	Total	46	97.9	100.0	
Missing	System	1	2.1		
Total		47	100.0		

Of the 46 returned questionnaires, 56.5 percent were from lecturers while 43.5 percent represents college management. The staff lecturers are basically more than other staff categories due to large numbers of educational programmes and subjects taught at the colleges across both Business/Commercial and ICT/Science faculties and departments.

4.6.2 Highest educational qualifications (A5)

Table 4.19: Frequency of the highest educational qualification in the sample

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Post-school diploma/certificate	10	21.3	21.7	21.7
	Diploma/certificate + Postgraduate Certificate/diploma	14	29.8	30.4	52.2
	Bachelors degree	16	34.0	34.8	87.0
	Honours or higher degree	6	12.8	13.0	100.0
	Total	46	97.9	100.0	
Missing	System	1	2.1		
Total		47	100.0		

Of the 46 respondents who completed the questionnaire, 47.8 percent had a degree or post-graduate qualification while 52.1 percent indicated that they had post-school diplomas or a postgraduate diploma or certificate. The above results in respect of staff; more particularly lecturers, could be one the significant reasons leading to students dropouts from the colleges.

4.6.3 Factor analytic procedure of Section K of the questionnaire

Although more respondents from the Campus would have been desirable, a factor analytic procedure of the seven questions was completed as the suggestion is that there should be between five to ten respondents for each question asked (Field, 2009:647). The respondents were asked to give their response on a five-point interval scale where 1 indicated to no extent and 5 indicated to a very large extent. When the seven variable were subjected to a PCA with Oblimin rotation the MSA values of item K5 (employment) and K2 (behavioural difficulties) were both less than 0.6 and were removed from the procedure. The KMO for these five variables was 0.716 with a significant Bartlett's sphericity ($p<0.0005$). One factor with a Cronbach Alpha reliability coefficient of 0.728 resulted. It was named aspects extrinsic to the student that enhance student dropout as the items can all be interpreted as being outside the student's direct control. It explained 50.09% of the variance present. This leaves 49.1% of the variance unexplained which is probably do to so few questions being asked. It is unlikely that seven items can determine the

variance present in the aspects extrinsic to the student, which enhance student dropout. The items, their factor loadings and mean scores are provided in Table 4.20

Table 4.20:   The items, factor loadings and mean scores contained in aspects extrinsic to the student enhancing college dropout (FK).

FK- Extrinsic factors enhancing student dropout (α = 0.728)			
Item	**Description**	**Loading**	**Mean**
K6	Dislike of school experience	.859	3.65
K7	Poor relationships with fellow students	.736	3.76
K4	Parent/guardian influences	.703	4.07
K1	Academic difficulty	.647	3.94
K3	Economic reasons	.558	3.78
Average			3.84

College staff believes that (lack of) parental influence or guidance enhances college dropout to a large extent (4.07). It could be said that they believe that all the aspects in this factor enhance college dropout to a moderate tending to a large extent (Figure 4.10).

Figure 4.10:   Histogram and box plot showing the data distribution in aspects extrinsic to students' (FK)
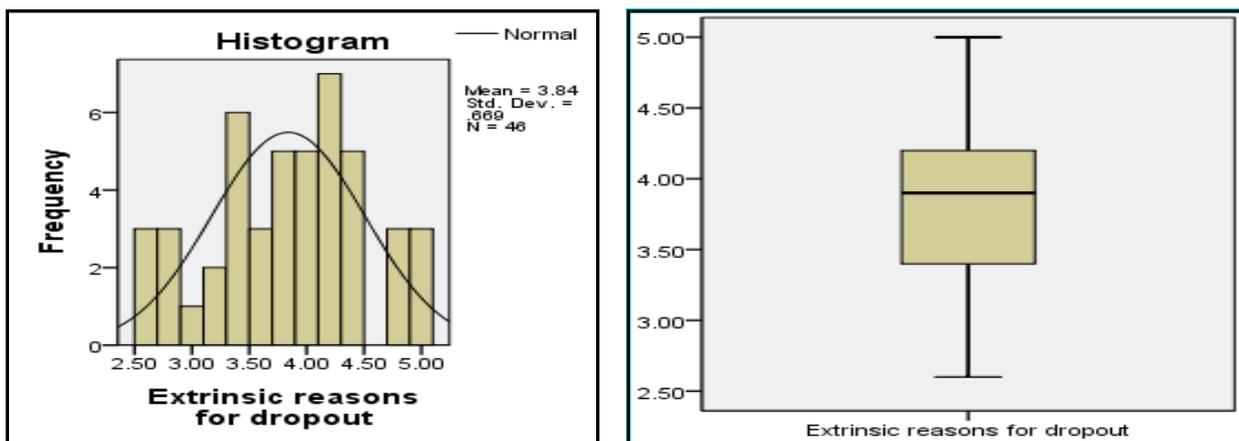
The mean score of 3.84 and median of 3.9 indicate that the data distribution is slightly negatively skewed as the majority of staff tends to believe that the aspects present in the factor enhance student dropout to a large extent. If one should arrange the data according to the mean scores achieved then K4 (parental influence) would be placed first in the ranking. This would be followed by K1 (academic difficulty), K3 (economic reasons), K7 (poor relationships with students) and K6 (dislike of school experience). However, on subjecting these five aspects to a multiple regressions procedure, the fourth model had the most acceptable parameters namely $[R^2 = 0.957; \Delta F (1, 41) = 40.24; p<0.0005]$. ANOVA $[F (4, 41) = 226.44; p<0.0005]$. The appropriate values as provided by SPSS 21.0 are given in Table 4.21.

Table 4.21:   The coefficients produced for model 4 by SPSS21.0 for the output variable aspects extrinsic to the individual that enhance student dropout (FK)

Factor	Unstandardised Coefficients		Standardised Coefficients	t-value	p-value
	B	Std. error	Beta (β)		
Dislike of school experience (K6)	0.288	0.027	0.447	10.59	0.000
Economic reasons (K3)	0.183	0.019	0.341	9.39	0.000
Parents influence/guidance (K4)	0.264	0.032	0.305	8.35	0.000
Academic difficulty (K1)	0.198	0.031	0.237	6.34	0.000

This regression model indicates that the dislike of school experience (K6) had the highest Beta coefficient and as such it is seen as the most important predictor of student dropout from FET colleges in the Gert Sibande region. This was followed by K3 (economic reasons), lack of parental guidance or influence and academic difficulty (K1). The item relating to poor relationships with fellow students was not rated as significant in model 4.

4.7   Significance of differences between the independent groups of students' with respect to the nine first-order factors

Section A of the questionnaire contained the independent variables, which consisted of various categories. Gender (A1), marital status (A4), highest educational qualification (A5) and field of study were used as independent groupings. Those variables which contained more than two groups were collapsed to two groups to make the groupings more equitable. The dependent variables were the nine first-order factors, which formed the underlying dimensions of the perceived aspects of college dropout (FB – FJ). Only those groups where statistically significant differences were found are discussed.

4.7.1   Marital status as independent group (A4_Rec)

With respect to the factor aspects relating to the student as individual (FB) respondents who were single had a statistically significantly higher factor mean score than married and other respondents had. The appropriate values were

$(\overline{X}_{Single} = 3.32; \overline{X}_{Married} = 3.03; t = 2.47; p = 0.01; r = 0.15)$.   Respondents'   who   were   single, believed to a statistically significantly greater extent than married and other respondents that aspects related to the individual student enhanced student dropout. The effect size (r=0.15) could be classified as small and hence the importance of this aspect is small. The reason for this difference in perceptions could be manifold and any suggestions from this researcher would be mere speculation.

4.7.2   Highest educational qualification as independent group (A5)

The original qualification groups were collapsed into two, namely, lower than grade 12 (Group 1) and Grade 12 or higher (Group 2). A statistically significant difference was found between the two groups with respect to the facilities (FE). The applicable results were

$(\overline{X}_{<G12} = 3.76; \overline{X}_{G12+} = 3.36; t = 3.68; p < 0.0005; r = 0.22)$. Respondents who had less than a Grade 12 qualification had a statistically significantly higher factor mean than respondents who had a Grade 12 qualification or higher. There was an inverse association in the sense that the lower the educational qualification, the higher the extent of agreement with the factor that facilities (or lack of facilities) enhance student dropout in FET colleges. Students who have

lower than a Grade 12 qualification have probably already dropped out of the public school education system for some or other reason and it is likely that they would have a perception that facilities are more important than they actually are with respect to academic achievement. It is also possible that they have an external locus of control and as such, the lack of facilities could serve as a psychological escape mechanism in order to boost self-esteem.

There was also a statistically significant difference between the factor means of the two qualification groups regarding the factor student finances (FF2.0). The results were $(\overline{X}_{<G12} = 3.78; \overline{X}_{G12+} = 3.61; t = 2.07; p = 0.04; r = 0.10)$. Students with the lower than Grade 12 qualifications had a statistically significantly higher factor mean with respect to student finances than did students who had a Grade 12 or higher qualification. It is possible that students who do not have a Grade 12 qualification would find it more difficult to obtain work than would those with a Grade 12 or higher qualification and hence they believe that finances play a larger role in student dropout, as it is more difficult for them to gain access to financial resources.

4.8 Significance of differences between the independent groups of staff' with respect to the nine first-order factors

No significant differences could be found between the dependent variable (FK) and the various independent groups like gender, post occupied and highest educational qualifications. All of these groups believed that the items in the factor to a moderate tending to a large extent enhanced student dropout from FET colleges in the Gert Sibande region.

4.9 CONCLUSION

In this chapter, an in-depth empirical analysis and interpretation was undertaken using the data collected through use of structured questionnaires. The research instrument used to gather data for the study was subjected to both structural validity and scale reliability tests based on the Kaiser-Meyer-Olkin(KMO) and Cronbach's alpha estimates; together with the descriptive statistics of the individual nine sub-dimensions influencing student dropouts from colleges.

The data contained in the responses to the individual items of the sub-dimensions were subjected to Principal Component Analysis (PCA) with varimax rotation using SPSS version 21.0 for

windows. The Kaiser-Meyer-Olkin (KMO), Bartlett's sphericity and Cronbach's alpha values indicate that the items could be reduced to a more parsimonious number of factors.

Exploratory Factor Analysis (EFA) and Principal Component Analysis (PCA) were also performed prior to estimation of the stepwise regression analysis. All nine sub-dimensions in the student questionnaire had scales that were reliable enough to be used for further testing. Based on the mean scores, the factors were arranged from the highest to the lowest scales in line with their perceived influences on college dropouts. The means model indicates that the students' perception is that management of their own study methods is the factor which enhances student dropout the most. Moreover, students' perceptions also indicate that lecturer related aspects are the second most important factor; while institutional aspects only enhances dropout moderately.

Given that the means are not necessarily the best predictor of which factors best enhance student dropouts, stepwise multiple linear regressions was applied as more suitable. The regression model indicates that aspects related to tests and examinations (FJ) had the highest beta coefficient and as such it was the best predictor of student dropout from FET colleges in the Gert Sibande region. It was followed by aspects related to own study management (FH), followed by aspects related to the individual student (FB). However, the staff believed that students' dislike of school experience (K6) was the best predictor, followed by economic reasons (K3) and lack of parental guidance and academic difficulty (K1). It does however appear as if both students and staff have the perception that the ideographic dimension in the FET colleges plays a more significant role in student dropout than does the nomothetic dimension. As the ideographic dimension is more concerned with student personality and motivation to work hard despite contextual difficulties, this indicates the importance which the individual's own ability plays in academic achievements. The nomothetic dimension which refers to the institutional dimension appears to play a secondary role. Students with an internal locus of control are more likely not to drop out of College.

The highest educational qualification obtained by the students was also associated with aspects related to the facilities of the institution (FE) and also with aspects related to student finances. From these associations it appears as if the better qualified the student is the more realistic is their expectation of the facilities available and the financial incentives provided.

Following the conclusion provided based on the results derived above, Chapter 5 will be given to provide both the conclusion and recommendations of the overall research study.

CHAPTER FIVE:

SUMMARY, FINDINGS AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter covers the conclusion, recommendations and suggestions for further research. In so doing, Section 5.2 deals with the summary of the entire research. Section 5.3 reports on primary research findings whilst Section 5.4 focuses on the recommendations emanating from the study. Section 5.5 explores possible suggestions for further research. Lastly, Section 5.6 concludes the entire study.

5.2 SUMMARY OF THE RESEARCH STUDY

The subject of student dropouts from education in most third world economies has emerged as a theme of serious concern in the field of educational research at global level. In South Africa, Fredericks, Blumenfeld and Paris (2004) indicate that one-third of learners who enrol in Grade 1 do not reach Grade 12. Moreover, a survey undertaken by the Department of Higher Education & Training (2005) divulges that approximately 30 percent from the total cohort of 120 000 first-time technical college undergraduates dropped out of college by the end of the academic year of their first enrolment.

Further to the first year college dropout, another 20 percent dropped out in the following two or three years of their studies. Such dropout statistics provide a strong case that college and school dropout is a serious problem confronting the country's education system. In another study conducted by Christenson and Thurlow (2004) and Dweck (1986), student dropout is an outcome derived from multiple factors that encompass student, institutional and socio-economic aspects. Dweck (1986) also found that students perceive dropout as largely an outcome of student-related characteristics, institutional factors and family socio-economic status.

Chapter 1 focused on the introductory framework of the study. Much focus was given to the background to the study, the study objectives, aims and research questions. As student dropouts are a major challenge at the Gert Sibande FET College, this study attempted to investigate the factors responsible for enhancing college dropouts.

Chapter 2 addressed literature review factors enhancing student dropouts from colleges. In addressing the problem of student dropouts, the study adopted the approach used by Wells et al. (2001) who categorized dropout predictors into distinct sub-dimensions which include student-related factors, institutional factors and socio-economic factors. The factors leading to student dropouts were categorised into nine sub-dimensions. Based on the literature survey conducted, the sub-dimensions were management of students' own study methods, lecturer related factors, student finances, subject comprehension by students, college facilities, student individual factors, tests and examination schedules, family socio-economic status and institutional aspects.

Chapter 3 covered the methodology and research design used in this study. The quantitative research approach was used to addressing the objectives of the study. The purpose of using these approaches were to explore the major factors driving student dropouts at Gert Sibande FET College and to measure the level of association between the drop outs and the major factors driving drop outs at Gert Sibande FET College.

A sample of Gert Sibande FET students was requested to complete the questionnaire which was used to ascertain students' perceptions on the causes of college dropouts. The target population consisted of students from two Gert Sibande College campuses, namely, Evander and Sibanesetfu. The population size comprised of one thousand five hundred (N = 1 500) students; out of which a total of 300 students were proportionately sampled from the total populations of the two campuses.

Data analysis process was undertaken using descriptive, exploratory and inferential techniques to address specific objectives. The data collected was subjected to data reduction process using Exploratory Factor Analysis (EFA) via Principal Component Analysis (PCA) prior to stepwise multiple regression in an attempt to find the most important predictors involved in college dropout. The major limitation of the study was that students used in the study were selected from two Gert Sibande FET College campuses, namely Evander campus and Sibanesetfu campus situated in the Mpumalanga Province. Bias in the sampling process was eliminated through the use of a simple random sampling approach.

Chapter 4 focused on the empirical analysis of data, interpretation and discussion of results from the study. The research instrument used to gather data for the study was subjected to both

structural validity and scale reliability tests based on the Kaiser-Meyer-Olkin (KMO) and Cronbach's alpha estimates, coupled with descriptive statistics of the individual nine sub-dimensions that influence student dropouts from college.

The data contained in the responses to the individual items of the sub-dimensions were subjected to principal component analysis via the varimax rotation using SPSS software package version 21.0 for windows. The Kaiser-Meyer-Olkin, Bartlett'ssphericity and Cronbach's alpha values indicated that the items reduced to a more parsimonious number of factors that significantly account for student dropouts.

5.3 SUMMARY OF PRIMARY FINDINGS

This section summarises the primary findings of the study.

Based on the results derived from the data, 74.8 percent of respondents were female students while 25.2 percent were male students. These results indicate the nature of distribution of students who participated in the study at the colleges surveyed in the Gert Sibande region. Regarding marital status, 69.0 percent of the student respondents were single; while 28.3% percent were married. The divorced and widowed respondents represented 0.9 percent each while those cohabitating represented 0.3 percent of the sample used.

From the surveyed student respondents, approximately 52.3 percent (n = 135) had have educational qualifications that were lower than Grade 12, while 37.2 percent held Grade 12 educational qualifications and 8.1 percent of the participants had a post-school diploma or certificate. Participants holding Diploma and Bachelor's degree educational qualifications represent 1.9 percent and 0.4 percent respectively. Additionally, approximately 51.6 percent of the surveyed students enrolled for business/commercial programmes; while the remaining 48.4 percent were studying Engineering or Information and Communication Technology or Science academic programmes.

Based on the principal component analysis, all nine sub-dimensions had scales that were reliable enough to be used for further testing. These results were consistent with the study undertaken by Berge and Huang (2004) who found significant mean scores for student individual factors, institutional facilities, academic variables and family socio-economic status. Grounded on the

mean scores, the factors were arranged from the highest to the lowest factor loadings achieved on the item scales in line with their perceived influences on college dropouts. The means model indicated that students had the perception that management of their own study methods was the factor that enhanced student dropout the most. Moreover, students' perceptions also indicate that lecturer related aspects were the second most important factor; while institutional aspects enhance dropout moderately.

Results from the students perceptions using multiple stepwise linear regression analysis of factors causing dropout from FET colleges was that aspects related to tests and examinations (FJ) was the best predictor followed by aspects related to own study management (FH), with aspects related to the individual students (FB) as the third best predictor of student dropouts from FET Colleges. These predictors were, however, not provided for the staff to evaluate. They were provided with similar causes in Section K of the questionnaire and they believed that the dislike of school experience (K6) was the most important predictor of student dropout from FET colleges in the Gert Sibande region; followed by economic reasons (K3); and lack of parental guidance and academic difficulty (K1).These findings correlate with those of Allensworth and Easton (2007) who found that institutional and family related factors were the major causes of student dropout from college.

In light of the findings of Allensworth and Easton (2007), a student's family socio-economic status, economic reasons and lack of parental guidance were also significant in influencing student dropouts. Based on the literature survey, these results were also in line with those found by Meyer (2010) who defines family socio-economic status as factors that encompass qualities of family composition, poverty levels, employment status and parental education backgrounds. Wells, Keen and Zimmerman (2007) also earlier found that family factors significantly contribute to the likelihood of student dropout from college. Along this dimension, Meyer (2010) revealed that students mentioned lack of parental support as a factor that significantly contributes to their dropout from colleges. Additionally, Ginsberg and Miller-Cribbs (2000) found lack of parental involvement in an abusive home as having a strong positive correlated to higher likelihood of dropping out from college.

However, this study also found that the ideographic dimension present in a social system such as an FET system plays a vital role in student perceptions of causes for dropping out of College. The student's individual personality, innate ability, talent and motivation to work hard despite contextual difficulties was deemed more important than the nomothetic dimension characterised by what the institution offers to students. Students with an internal locus of control who accept personal responsibility for lack of academic achievement are more likely to stay in College and not join the ranks of the College dropouts.

5.4 RECOMMENDATIONS

Given the challenges identified in the study, and based on the conclusions drawn, this section advances recommendations on how the challenges identified in the study could be best addressed.

5.4.1   Make learning relevant

There is great need for Gert Sibande Campuses to make learning relevant to students in order to discourage them from stopping attending classes and wind up dropping out of college. Instruction that takes students into the broader community provides opportunities for all students - especially experiential learners - to connect to academics in a deeper, more powerful way. Programmes such as internships in local businesses and non-profit organizations should be integrated into the regular college learning duration. Again, students should be encouraged to work with lecturer advisors to find out more about what interests them and to research and locate internships.

5.4.2 Adopt a student-centred funding model

Research shows that it costs more to educate some students, including students living in poverty and science subject learners, and students with disabilities (Allensworth & Easton, 2007). This indicates the need for adoption of student-centred funding model at Gert Sibande College when policies about student funding are designed by the macro-level of the educational system. A student-centred funding model adjusts the funding amount based on the demographics of individual students and college, and more closely aligns funding to their unique needs. Flexible funding will enable colleges with more challenging populations to gain access to more resources

so they can take the needed steps such as reducing class size, hiring more experienced and effective teachers, and implementing other programmes and services to support students with greater needs.

5.4.3 Cultivate relationships

Concerned lecturers at Gert Sibande College can make the difference between a student staying in college or dropping out. These concerned lecturers serve as advisors, who meet during the college day with a group of students and provide a structured way of enabling those supporting relationships to grow and thrive. The advisor and the students should meet regularly, work together for several years of a student's college life, and involve staff development that helps lecturers support the academic, social, and emotional needs of their students. Consequently, these close relations will assist lecturers to improve their effectiveness. These lecturers should also provide students with practical examples of a study timetable as well as emphasising the role of one's innate potential. The importance of developing an internal locus of control needs to be emphasised as it is a major factor in monitoring academic progress.

5.4.4   Rethink schedules

For some of the Gert Sibande students, the demands of a job or family responsibilities make it impossible for them to attend college on a full time basis. Forward-thinking institutions recognise the need to come up with alternatives. As such, Gert Sibande Campuses could start offering weekend and evening classes, providing students with flexible scheduling that enables them to work or handle other responsibilities while still attending college. This recommendation corroborates with Las Vegas', students at Cowan Sunset Southeast High School's Cowan Sunset who can attend classes in the late afternoon and early evening to accommodate work schedules to help young parents continue their education (Baker & Sansone, 1999).

5.5 AREAS FOR FURTHER RESEARCH

The aim of the research was to investigate students' perceptions of the factors that significantly cause them to dropout from colleges. Following the findings from the research study, the following recommendations are provided below.

Future studies on the factors enhancing student dropouts should use continuous versions of these variables since these variables would provide a more detailed specificity to the differences between sub-dimensions. Additionally, a future extension of this study would involve conducting case studies in two different ways. Technically, consistent studies should be conducted on the types of dropouts to provide a thorough description of the students under study. The findings to be derived are expected to provide useful insight on strategies that can be adopted to successfully implement dropout reduction programmes when coupled with research on the reasons students drop out of college.

Furthermore, the studies should also be undertaken on a larger sample of students explored from more colleges in the region, as this study was limited to one college. This would enhance an extensively in-depth analysis of the characteristics of each of these four types of schools to explore and investigate factors within the control of schools can mediate a student's likelihood of dropping out. Although collecting additional data and conducting quantitative analyses would expand this study, case study analysis would allow for a much richer understanding of effective dropout prevention.

5.6 CONCLUSION

In conclusion, it is vital to note that one of the key priorities of Gert Sibande FET College is achieving a high rate of student retention. Consequently, this will ensure successful completion of training of the students as expected in their various fields of pursuit. However, to constantly achieve this desired outcome, the findings in this research clearly revealed that there is great need for Gert Sibande College to build and strengthen the College's student centred financial capacity to assist students with diverse financial needs. In the same token, the above discussed intervention strategies should be judiciously implemented to help address the spiral of college dropouts. The recommendations above will probably require the careful consideration and genuine commitment on the part of all National and Provincial educational senior and junior officials.

REFERENCES

Albrecht, T. L., Johnson, G. M., & Walther, J. B. (1993). Understanding communication processes in focus groups. In D. L. Morgan (Ed.), *Successful focus groups: Advancing the state of the art* (pp. 51-64). Newbury Park, CA: Sage.

Alexander, K. L., & Entwisle, D. (2001). The dropout process in life course perspective: Early risk factors at home and school. *Teachers College Record, 103*(5), 760-822.

Alexander, K., Entwisle, D., & Horsey, C. (1997). From first grade forward: Early foundations of high school dropout. *Sociology of Education, 70*(2), 87-107.

Allensworth, E., & Easton, J. (2007).*What matters for staying on-track and graduation in Chicago public high schools: A close look at course grades, failures and attendance in the freshman year.* Chicago, IL: Consortium on Chicago School Research.

Amrein, A. L., & Berliner, D. C. (2002).High-stakes testing, uncertainty, and student learning.*Education Policy Analysis Archives, 10*(18). Retrieved from http://epaa.asu.edu/epaa/v10n18/.

Amrein, A. L., & Berliner, D. C. (2003).The effects of high-stakes testing on student motivation and learning.*Educational Leadership, 60*(5), 32-38.

Baker, J., &Sansone, J. (1999). Interventions with students at risk for dropping out of school: A high school responds. *The Journal of Educational Research, 83*(4), 181- 186.

Balfanz, R., & Herzog, L. (2005).*Keeping middle grades students on track to graduation: Initial analysis and implications.* Presentation given at the second Regional Middle Grades Symposium, Philadelphia, PA.

Battin-Pearson, S., Guo, J., Hill, K. G., Abbott, R. D.,& Hawkins, J. D. (1998).Early predictors of sustained adolescent gang membership.*Criminology, 36*(1), 93-115.

Bloom, D., Gardenhire-Crooks, A., &Mandsager, C. (2009). Reengaging high school dropouts: Early results of the National Guard Youth Challenge Program evaluation. New York, NY: MDRC.

Booyse, E. (2003). *Truancy: A prelude to dropping out.* Bloomington, IN: National Education Service.

Bottoms, G., & Fry, B. (2009).*The district leadership challenge: Empowering principals to improve teaching and learning* (Publication No. 09V11). Atlanta, GA: SouthernRegional Education Board.

Brewster, C., &Fager, J. (2000).*Increasing student engagement and motivation: From time-on-task to homework* ("Hot Topic" Report No. 14). Portland, OR: Northwest Regional Educational Laboratory.

Bridgeland, J., DiIulio, J., Jr., & Morison, K. (2006).*The silent epidemic: Perspectives of high school dropouts.* Washington, DC: Civic Enterprise in association with PeterD. Hart Research Associates for the Bill & Melinda Gates Foundation.

Brindis, C., &Philleben, S. (1998). Room to grow: Improving services for pregnant and parenting teenagers in school settings. *Education Urban, 30*, 242-260.

Bristol, T., & Fern, E. F. (1996). Exploring the atmosphere created in focus group interviews: Comparing consumers' feelings across qualitative techniques. *Journal of the Market Research Society, 38*(2), 185-195.

Bryck, A., &Thum, Y. M. (2009). The effects of high school organization on dropping out: An exploratory investigation. *American Educational Research Journal, 26*, 353-383.

Cairns, R. B., Cairns, B. D., &Neckerman, H. J. (1999). Early school dropout: Configurations and determinants. *Child Development, 60,* 1437-1452.

Carpenter, D., & Ramirez, A. (2007). More than one gap: Dropout rate between and among Black, Hispanic and White students. *Journal of Advanced Academics, 19,*32-64.

Chalker, C. S., &Stelsel, K. (2009). A fresh approach to alternative education: Using malls to reach at-risk youth. *Kappa Delta Pi Record, 45*(2), 74-77.

Christenson, S. L., &Thurlow, M. L. (2004). School dropouts: Prevention considerations, interventions, and challenges. *Current Directions in Psychological Science, 13*(1), 36-39.

Conchas, G., & Clark, P. (2002). Career academies and urban minority schooling: Forging optimism despite limited opportunity. *Journal of Education for Students Placed at Risk, 7*(3), 287-341.

Cozby, W. (2004). *Research design: Qualitative and quantitative approaches.* Thousand Oaks, CA: Sage.

Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches.* Thousand Oaks, CA: Sage.

Croninger, R. G., & Lee, V. (2001). Social capital and dropping out of high school: Benefits to at risk students of teacher's support and guidance. *Teacher's College Record, 103,* 548-581.

Davalos, D. B., Chavez, E., & Guardiola, R. J. (1999).The effects of extracurricular activity, ethnic identification, and perception of school on student dropout rates. *Hispanic Journal of Behavioral Sciences, 21*(1), 61-77.

Delgado Bernal, D. (2002). Critical race theory, Latino critical theory, and critical raced gendered epistemologies: Recognizing students of color as holders and creators of knowledge. *Qualitative Inquiry, 8*(1), 105-126.

Dillman, D. (2000). *Mail and internet surveys: The tailored design method.* New York, NY: Wiley.

Dweck, C. S. (2006). Motivational processes affecting learning [Electronic version]. *American Psychologist, 41*(10), 1040-1048.

Ekstrom, R. B., Goertz, M. E., Pollack, J. M., & Rock, D. A. (1998). Who drops out of high school and why? Findings of a national study. *Teacher's College Record, 87,*3576-3730.

Ett, J. A. (2008). *A study of an outperforming urban high school and the factors which contribute to its increased academic achievement with attention to the contribution of student engagement.*Los Angeles, CA: Rossier School of Education, University of Southern California.

Fern, E. F. (1982). The use of focus groups for idea generation: The effects of group size, acquaintanceship and moderator on response quantity and quality. *Journal of Marketing Research, 19,* 1-13.

Fine, M. (2001). *Framing dropouts: Notes on the politics of an urban public high school.* Albany, NY: State University of New York Press.

Finn, J. D. (1993). *School engagement and students at risk* (NCES 93 470). Washington, DC: National Center for Educational Statistics, U.S. Department of Education.

Fredericks, J., Blumenfeld, P., & Paris, A. (2004). School engagement: Potential of the concept, and state of the evidence. *Review of Educational Research, 74*(1), 59-109.

Freire, P. (1993). *Education for critical consciousness.* New York, NY: Continuum.

Frey, J. H., & Fontana, A. (1993). The group interview in social research. In D. L. Morgan (Ed.), *Successful focus groups: Advancing the state of the art* (pp. 20-34). Newbury Park, CA: Sage.

Gates, W. (2008, November 11). *Bill Gates—A forum on education in America.* Retrieved from http://www.gatesfoundation.org/speeches-commentary/Pages/bill-gates-2008-education-forum-speech.aspx

Ginsberg, L., & Miller-Cribbs, J. (2000).*Understanding social problems, policies and programs.* Columbia, SC: University of South Carolina Press.

Glasser, W. (1998).*Choice theory: A new psychology of personal freedom.* New York, NY: Harper Collins.

Goldman, A. E., & McDonald, S. S. (1987). *The group depth interview: Principles and practice.* Englewood Cliffs, NJ: Prentice-Hall.

Gordon, W., &Langmaid, R. (1988).*Qualitative market research: A practitioner's and buyer's guide.*London, England: Gower.

Greene, J. P., & Winters, M. A. (2005*). The effect of residential school choice on public high school graduation rates* (Education Working Paper No. 9). New York, NY:Manhattan Institute for Policy Research.

Gullatt, D., &Lemoine, D. (1997). Truancy: What's a principal to do? *American Secondary Education, 26*(1), 7-12

Hammond, L. D. (2001). The right to learn: A blueprint for creating schools that work. an Francisco, CA: Jossey-Bass.

Hansen, K., & Hansen, R. S. (2006).*Using asynchronous discussion board for online focus groups: A protocol and lessons learned.* Paper presented at 2006 College Teaching and Learning Conference, Washington, DC.

Hantos, J. L., & Power, T. G. (1997). Mothers' awareness of their early adolescent's stressors: Relation between awareness and adolescent adjustment. *Journal of Early Adolescence, 17*(3), 294-318.

Heckman, J., & LaFontaine, P. (2007).*The American high school graduation rate: Trends and levels.* Bonn, Germany: Institute for the Study of Labor.

Herlihy, C. (2007). *State and district-level supports for successful transition into high school.*Washington, DC: National High School Center.

Hertzog, C. J. (1996). Transition to high school: A look at student perceptions. *Becoming, 7*(2), 6-8.

Hess, J. M. (1968). Group interviewing. In R. L. King (Ed.), *New science of planning* (pp. 51-84). Chicago, IL: American Marketing Association.

Hidi, S., &Harackiewicz, J. M. (2000).Motivating the academically unmotivated: A critical issue for the 21st century.*Review of Educational Research, 70*(2), 151-179.

Horn, L., & West, J. (1992).*National education longitudinal study of 1988: A profile of parents of eighth graders* (ED350341). Washington, DC: U.S. Government Printing Office.

Indiana University Center for Evaluation and Education Policy (CEEP).(2006). *High School Survey of Student Engagement.*Retrieved from http://ceep.indianna.edu/hssse/index.htm.

Joseph, D. (2004). *Hispanic dropouts speak out: A study of Hispanic youth and their experiences in the public school system.* Retrieved fromhttp://hdl.handle.net/2152/1339.

Keene, E., & Zimmerman, S. (2007). *Mosaic of thought: Teaching comprehension in a reader's workshop* (2nd ed.). Portsmouth, NH: Heinemann.

Keene, R. (2003). *Analyzing student perceptions to develop a more thorough understanding of motivation for dropout re-entry* (Unpublished doctoral dissertation). University of Idaho, ID.

Levin, H., Belfield, C., Muenning, P., & Rouse, C. (2007).*The costs and benefits of an excellent education for all of America's children.* New York, NY: Teachers College Press.

Linver, M. R., & Silverberg, S. B. (1997). Maternal predictors of early adolescent achievement related outcomes: Adolescent gender as moderator. *Journal of Early Adolescence, 17*(3), 294-318.

Mahoney, J. L. (1997). Do extracurricular activities protect against early dropout? *Developmental Psychology, 3*(2), 241-253.

Marshall, C., &Rossman, G. B. (1999).*Designing qualitative research* (3rd ed.). Thousand Oaks, CA: Sage.

Maslow, A. (1954). *Motivation and personality.* New York, NY: Harper.

Mehan, H., Villanueva, I., Hubbard, L., &Lintz, A. (1996).*Constructing school success: The consequences of un-tracking low-achieving students.* New York, NY: Cambridge University Press.

Merton, R. K., Fiske, M., & Kendall, P. (1956).*The focused interview: A manual of problems & procedures.* Glencoe, IL: Free Press.

Metzer, D. (1997, March).*When do high school dropouts return to education and why?* Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

Mitra, D., & Gross, S. J. (2009). Increasing student voice in high school reform: Building partnerships, improving outcomes. *Educational Management, Administration, and Leadership, 37*(4), 452-473.

Mizelle, N. B. (1995). *Transition from middle school into high school: The student perspective.* Paper presented at the annual meeting of the American Education Research Association, San Francisco, CA.

Neild, R., Stoner-Eby, S., & Furstenberg, F. (2008).Connecting entrance and departure: The transition to ninth grade and high school dropout. *Education and Urban Society, 40*(5), 543-569.

Newman, F. (1992).*Student engagement and achievement in American secondary schools.* New York, NY: Teacher's College Press, Columbia University.

Oblinger, D. G. (2005).*Educating the next generation.* Retrieved from https://www.msmc.la.edu/Include/learning_resources?todays_Learner?OneDayv2-HO.pdf

Opara, A. (2003). *A comparison of urban comprehensive schools.*(Unpublished doctoral dissertation).Rossier School of Education, University of Southern California.

Organisation for Economic Co-Operation and Development.(2007). *Education at a glance.* Paris: Author.

Paulson, S. E. (1994). Relations of parenting style and parental involvement with ninth grade student achievement. *Journal of Early Adolescence, 14*(2), 250-267.

Plucker, J. A. (2005*). Kentucky 21st Century Community Learning Centers: Data summary report.* Center for Evaluation and Education Policy. Retrieved fromhttp://ceep.indiana.edu/manual/PDF4

Price, H. B. (2006). *Demilitarizing what the Pentagon knows about developing young people: A new paradigm for educating students who are struggling in school and in life.* Washington, DC: Center on Children and Families, TheBrookings Institution.

Reyes, O., Gillock, K., Kokus, K., & Sanchez, B. (2000).A longitudinal examination of the transition into senior high school for adolescents from urban low income status and predominantly minority backgrounds.*American Journal of Community Psychology, 28*(4), 519-544.

Roderick, M. (1993).*The path to dropping out: Evidence for intervention.* Westport, CT: Auburn House.

Rumberger, R. W. (2003). The causes and consequences of student mobility.*Journal of Negro Education, 72*(1), 6-21.

Rumberger, R. W., & Larson, K. A. (1998).Student mobility and the increased risk of high school dropout.*American Journal of Education, 107*(1), 1-35.

Sinclair, M. F., Christenson, S. L., Evelo, D. L., & Hurley, C. M. (1998). Dropout prevention for youth with disabilities: Efficacy of a sustained school engagement procedure. *Exceptional Children, 65*(1), 7-21.

Smith, J., & Lee, V. (1997). High school size: Which works best and for whom? *Educational Evaluation and Policy Analysis, 19*(3), 205-227.

Steinberg, A., & Almeida, C. A. (2008).*Raising graduation rates in an era of high standards: Five commitments for state action.* White paper prepared for Staying the Course: High Standards and Improved Graduation Rates, a joint project of Achieve and Jobs for the Future. Washington, DC.

Stewart, D. W., & Shamdasani, P. W. (1990).*Focus groups: Theory and practice.* Newbury Park, CA: Sage.

Swanson, C. (2004). *High school graduation, completion, and dropout (GCD) indicators.* Washington, DC: Urban Institute.

Swanson, M. C., Marcus, M., & Eliott, J. (2000). Rigor with support: Lessons from AVID. *Leadership, 30*(2), 26-27, 37-38.

Tabachnick, B. G., &Fidell, L. S. (2000).*Using multivariate statistics* (4th ed.). Boston, MA: Pearson/Allyn& Bacon.

Tapscott, D. (1999). *Growing up digital: The rise of the net generation.* New York, NY: McGraw-Hill.

Taylor, S. J., & Bogdan, R. (1998).*Introduction to qualitative research methods* (3rded.). New York, NY: Wiley.

Tinto, V. (2004). Classrooms as communities: Exploring the educational character of student persistence. *Journal of Higher Education, 68,* 599-623.

Tyler, J. H., & Lofstrom, M. (2009).Finishing high school: Alternative pathways and dropout recovery. *Future of Children, 19*(1), 77-103.

Tyner-Mullings, A. R. (2008).*Central Park East Secondary School and the Alternative School Movement in New York City.* Paper presented at the annual meeting of the American Sociological Association Annual Meeting, Sheraton Boston and the Boston Marriott Copley Place, Boston, MA. Retrieved fromhttp://www.allacademic.com/meta/p243091_index.html

Von Hippel, E. (2005). *Democratizing innovation.* Cambridge, MA: MIT Press.

Wagner, M. (1996). Longitudinal post-school outcomes of youth with disabilities: Findings from the National Longitudinal Transition Study. *Exceptional Children, 62*(5), 399-414.

Watson, C. R. (1999). *Best practices from America's middle schools.* Larchmont, NY: Eye on Education.

Wells, S., Bechard, S., & Hambly, J. V. (2001).*How to identify at-risk students: A series of solutions and strategies.* Clemson, SC: National Dropout Prevention Center at Clemson University.

White, G., Lare, D., Mueller, S., Smeaton, P., & Waters, F. (2007). The Virtual Education Academy: A novel approach to engaging at-risk students. *Kappa Delta Pi Record,44*(1), 13-17.

ANNEXURE A

COVERING LETTER FOR RESEARCH SURVEY PARTICIPANTS

Dear Sir/Madam

Please kindly refer to the research survey objective provided by the research topic indicated herein below:

TITLE: AN EXPLORATION OF THE DRIVERS OF COLLEGE DROPOUTS: THE CASE OF GERT SIBANDE FURTHER EDUCATION AND TRAINING (FET) COLLEGE

In light of the above, this letter serves to confirm that the purpose of this study is to help expand the existing body of knowledge on drivers of (factors causing); and their related extents to which they stimulate college dropouts of Gert Sibande's Evander and Sibanesetfu campuses.

The researcher will observe any confidentiality requirements regarding information availed in assisting with this study. The author, or any other person without the permission of the Research Report Provider will not use the content of research reports. Moreover, there will be no disclosure of the names of the participant to ensure strict confidentiality and anonymity.

Your cooperation is greatly appreciated.

Thank you.

Yours Faithfully

CENTRAL OFFICE
18 A Beyers Naude Street
P.O. Box 3475
Mpumalanga
Standerton
2430
Tel: (017) 712 9040
Fax: (086) 509 4156

GERT SIBANDE FET COLLEGE - DEPARTMENT OF HIGHER EDUCATION AND TRAINING

GSC-ADM-Letterhead-2011-R02   2011-03-21   Page 1 of 1   VEM/klm

Dear Participants (Senior College Managers/Lecturers/Students/Administrative staff/Registrations & Marketing)

Gert Sibande FET College is a registered and accredited Further Education and Training College based in Gert Sibande region in Mpumalanga Province. The college consists of four campuses operating across the region. The college's student enrolment and graduation throughput statistics have, however, revealed that the college has been experiencing relatively high student dropouts over the period 2009 to 2012 across all its campuses. Between 2009 and 2010, Standerton campus posted the dropout rate of 23%; and between 2010 and 2011, Ermelo recorded dropout of 13.5%; while Standerton recorded 12.5% dropout between 2011 and 2012.

In an effort to evaluate the principal driving factors behind these high dropout rates, this research has been designed to *explore major factors driving student dropouts at Gert Sibande FET College.* Results of the study are expected to help college leadership to implement appropriate intervention mechanisms to contain the problem being experienced at Gert Sibande FET College.

It is against this background that this structured questionnaire was designed to be used as one of the most effective ways of eliciting your opinions regarding factors driving student dropouts. Considerable importance is given to the fact that your opinion will contribute towards a better understanding of the major factors accounting for significant student dropouts at Gert Sibande FET College in assisting college leadership with their intricate challenging task.

Kindly note that your participation is voluntary, all information provided is confidential and you are at liberty to withdraw from this research study at any point, should you feel so. Your integrity

will in no way be compromised by your participation in this study. The author, or any other person without the permission of the Research Report Provider will not use the content of the final research report.

Please complete this questionnaire. It will require about 20 minutes of your time. Please take note of the following:

You may remain anonymous, so do not write your name on the questionnaire.

- Kindly provide your honest opinion;
- Your first re-action is most valid; do not ponder too long over any question;
- Please answer all questions;
- Please return the questionnaire to the person from whom you received it as soon as possible; and
- Feedback will be provided to you once the research is completed

Thank you for your time and co-operation.

Yours Faithfully

Ms TPP Masemola

Please complete Section A by placing a cross over or a circle around the appropriate number.

SECTION A (BIOGRAPHICAL INFORMATION)

A1.   What is your gender?

Female---	1
Male--	2
Other	3

A2.   Tick a relevant box

Student--	1
Lecturer---	2
Registration Official	3
Curriculum Manager	4
Campus Manager	5
Executive Manager CEO/DCEO/CFO	6
Other	7

A3.   How old are you (in completed years)?

E.g. if you are thirty five years old, enter	3	5	--------------------------------		

A4.   What is you marital status?

Single --	1
Married ---	2
Divorced ---	3
Widowed ---	4
Cohabitating ---	5

A5.   What is your **highest** educational qualification?

Lower than grade 12--	1
Grade 12--	2
Post-school diploma/certificate--	3
Diploma/certificate plus postgraduate diploma/certificate-----------------------------------	4

Bachelor's degree---	5
Honours or higher qualification---	6

A6. Mark the highest Achievement in Mathematics/Mathematical Literacy and English (1, 2, 3 or 4) and

Provide the symbol obtained (A to G)

		Symbol
Mathematics Grade 9-11--	1	
Mathematics Grade 12---	2	
Mathematics Literacy Grade 9-11-------------------------------------	3	
Mathematics literacy Grade 12--	4	
English Grade 9-11--	5	
English Grade 12--	6	

A7. To which of the following **study fields** do you belong?

Engineering/ICT/Sciences	--	1
Business/Commercials	--	2

SECTION B

In this section we require you to give the extent that you believe that the factors provided enhance or contribute towards student dropout. Express your opinion on the 5-point scale as follows:

1 = to no extent

2 = to a small extent

3=to a moderate extent

4 = to a large extent

5 = to a very large extent

An example is provided in the box below.

To what extent do you believe that the following factors enhance student dropout in FET colleges in the Gert Sibande region of Mpumalanga?

Example: A lack of sufficient funds to pay study fees?
(If you believe this *to a small extent* then mark **2** as follows):

To no extent	1	2	3	4	5	To a very large extent

SECTION B (STUDENT INDIVIDUAL-RELATED FACTORS)

No.	what extent do you believe that the following factors enhance student dropout in FET colleges in the Gert Sibande region of Mpumalanga?	To no extent	To a small extent	To a moderate extent	To a large extent	To a very large extent
B1.	Poor successive academic achievement causes student dropouts?	1	2	3	4	5
B2.	Low lesson attendance causes student dropouts?	1	2	3	4	5
B3.	Difference in expectations between School and College causes student dropouts?	1	2	3	4	5
B4	Programme enrolled for is not first choice?	1	2	3	4	5
B5	Pressure from peers causes student dropouts?	1	2	3	4	5
B6	Drug abuse (including alcohol) by students causes student dropouts?	1	2	3	4	5

SECTION C (FAMILY SOCIO-ECONOMIC STATUS RELATED FACTORS)

No.	what extent do you believe that the following factors enhance student dropout in FET colleges in the Gert Sibande region of Mpumalanga?	To no extent	To a small extent	To a moderate extent	To a large extent	To a very large extent
C1.	Parents' educational background/qualifications?	1	2	3	4	5
C2.	Family size and dependence ratio?	1	2	3	4	5
C3.	Family sustainable level of income?	1	2	3	4	5
C4.	Family members' occupation or employment status?	1	2	3	4	5
C5.	Lack of support from parents/guardians?	1	2	3	4	5

SECTION D (INSTITUTIONAL RELATED FACTORS)

No.	To what extent do you believe that the following factors enhance student dropout in FET colleges in the Gert Sibande region of Mpumalanga?	To no extent	To a small extent	To a moderate extent	To a large extent	To a very large extent
D1.	Poor college student monitoring mechanisms?	1	2	3	4	5

D2.	Unavailability of extra-curricular activities?	1	2	3	4	5
D3.	Lack of recognition of NCV qualification by employers?	1	2	3	4	5
D4.	Absenteeism by teachers/lecturers?	1	2	3	4	5
D5.	Poor competence of lecturers?	1	2	3	4	5

SECTION E (FACILITIES-RELATED FACTORS)

No.	To what extent do you believe that the following factors enhance student dropout in FET colleges in the Gert Sibande region of Mpumalanga?	To no extent	To a small extent	To a moderate extent	To a large extent	To a very large extent
E1.	Lack of academic support resources?	1	2	3	4	5
E2.	Lack of knowledge on how to use all the library resources (including catalogues, journals, the information librarian, etc)?	1	2	3	4	5
E3.	Finances for printing of assignments, portfolios and so forth?	1	2	3	4	5
E4.	Unavailability of textbook on time?	1	2	3	4	5
E5.	No access to a computer and other resources?	1	2	3	4	5
E6	Class handouts are not made available on time?	1	2	3	4	5

SECTION F (STUDENT FINANCIAL-RELATED FACTORS)

No.	what extent do you believe that the following factors enhance student dropout in FET colleges in the Gert Sibande region of Mpumalanga?	To no extent	To a small extent	To a moderate extent	To a large extent	To a very large extent
F1.	Difficulty in getting a bursary to cover College fees?	1	2	3	4	5
F2.	Parents/guardians being unemployed?	1	2	3	4	5
F3.	Having a part-time job to earn sufficient funds?	1	2	3	4	5
F4	Need to support the family?	1	2	3	4	5
F5	Bursary money comes late in the year?	1	2	3	4	5
F6	Difficulty in getting a bursary/ loan to cover my accommodation and travel costs?	1	2	3	4	5

SECTION G (IN LECTURES-RELATED FACTORS)

No.	To what extent do you believe that the following factors enhance student dropout in FET colleges in the Gert Sibande region of Mpumalanga?	To no extent	To a small extent	To a moderate extent	To a large extent	To a very large extent
G1.	Lack of preparation by lecturers before attending class?	1	2	3	4	5
G2.	Not asking questions in class when I do not understand something?	1	2	3	4	5
G3.	Lack of concentration for the duration of all of the lectures?	1	2	3	4	5
G4	Lecturers not explaining the work in sufficient detail?	1	2	3	4	5
G5	Not understanding the lecturers?	1	2	3	4	5
G6	The size of one or more of the classes makes it difficult for me to learn.	1	2	3	4	5

SECTION H (OWN STUDY MANAGEMENT-RELATED FACTORS)

No.	what extent do you believe that the following factors enhance student dropout in FET colleges in the Gert Sibande region of Mpumalanga?	To no extent	To a small extent	To a moderate extent	To a large extent	To a very large extent
H1.	Not being able to stick to a study plan?	1	2	3	4	5
H2.	Not finding a suitable study group?	1	2	3	4	5
H3	Not having sufficient knowledge on how to draw up a study plan?	1	2	3	4	5
H4	Not being able to concentrate when studying?	1	2	3	4	5
H5	Not being able to comprehend technical phrases?	1	2	3	4	5
H6	Not being able to set realistic study goals for myself to achieve?	1	2	3	4	5

SECTION I (PROGRAMME-RELATED FACTORS)

No.	what extent do you believe that the following factors enhance student dropout in FET colleges in the Gert Sibande region of Mpumalanga?	To no extent	To a small extent	To a moderate extent	To a large extent	To a very large extent
I.1	The workload is too large for me to cope with?	1	2	3	4	5
I.2	Inability to summarize the key aspects of the subject content?	1	2	3	4	5
1.3.	Inability to understand specific key concepts in my discipline (e.g. technical phrases; the use of Latin for non-legal)?	1	2	3	4	5
I.4	Not having exposure to workplace environment?	1	2	3	4	5
I.5	Not understanding the prescribed textbooks?	1	2	3	4	5
I.6	Not being able to apply the subject content to practical examples (e.g. case interpretation).	1	2	3	4	5

SECTION J (TESTS AND EXAMS-RELATED FACTORS)

No.	what extent do you believe that the following factors enhance student dropout in FET colleges in the Gert Sibande region of Mpumalanga?	To no extent	To a small extent	To a moderate extent	To a large extent	To a very large extent
J1.	The difference between my assignment marks and my test/exam marks.	1	2	3	4	5
J2.	Inability to work out how much time to spend on each question in the examinations?	1	2	3	4	5
J3.	The poor marks obtained in the theoretical work?	1	2	3	4	5
J4	The poor marks obtained in the practical work?	1	2	3	4	5
J5	Test/ examination anxiety?	1	2	3	4	5
J5	Not being able to remember the subject content that I learnt?	1	2	3	4	5
J6	The failure of a subject?	1	2	3	4	5

SECTION K SHOULD BE COMPLETED BY CAMPUS LECTURERS

In this section we require you to give the extent that you believe that the factors provided enhance or contribute towards student dropout. Express your opinion on the 5-point scale as follows:

1 = to no extent

2 = to a small extent

3=to a moderate extent

4 = to a large extent

5 = to a very large extent

An example is provided in the box below.

No.	what extent do you believe that the following factors enhance student dropout in FET colleges in the Gert Sibande region of Mpumalanga?	To no extent	To a small extent	To a moderate extent	To a large extent	To a very large extent
K1.	Academic difficulty.	1	2	3	4	5
K2.	Behavioural difficulty.	1	2	3	4	5
K3.	Economic Reasons.	1	2	3	4	5
K4	Parent/Guardian Influence.	1	2	3	4	5
K5	Employment.	1	2	3	4	5
K5	Dislike of School Experience.	1	2	3	4	5
K6	Poor Relationships with Fellow Students.	1	2	3	4	5