STUDENT DROPOUT AT THE VAAL UNIVERSITY OF TECHNOLOGY: A CASE STUDY

Study Leader: Dr HJ Brits
Study Team: Dr U Hendrich
           Me C vd Walt
           Mr Y Naidu

November 2011
STUDENT DROPOUT AT THE VAAL UNIVERSITY OF TECHNOLOGY: A CASE STUDY

1. INTRODUCTION

The drop-out rate of students at institutions of higher learning in South Africa is relatively high (Baumgart & Johnstone, 1977:553). On national level, the National Plan for Higher Education or NPHE (2001) established certain benchmarks for graduation or throughput rates. These were superseded in March 2007 by enrolment and output targets for all institutions of higher learning to be attained by the end of 2010 (Visser & Subotsky, 2007:3). South Africa had a graduation rate between 1993 and 1998 of 15% which is of the lowest in comparison with universities on international level (NPHE, 2001: 18). There is an annual loss of R1.3 billion in government funds on students who were unsuccessful in completing their studies. The high levels of drop-out rates at institutions of higher learning should also be understood against the tendency nationally and internationally of the “massification of education” and, with regard to universities in South Africa, against the background of the new dispensation of higher education of a post-apartheid era. Scott, Yeld and Hendry (2007:23-29) state that there is a small pool of “adequately prepared” candidates for higher learning. Increasing the intake of students at universities will result in a corresponding increased intake of the proportion of less-prepared students.

The NPHE (2001) emphasises the need to increase both the participation and graduation rates of black students and in particular African students. The enhancement of throughput remains a priority for the Department of Education. Graduate output in the old South African Post-Secondary Education (SAPSE) was a factor, which is still applicable in the new funding formula, for determining the funding of universities (Department of Education, 2001), i.e. the new funding framework connects funding to the number of graduates that an institution produces (Letseka & Maile, 2008: 2).
Many institutions with a tendency to high drop-out rates have not been able to translate what they already know about their student retention into interventions that have led to substantial success with regard to student persistence and graduation (Tinto, 2006:5). There is an enormous amount of research available with regard to student retention and success on international level, but in Africa and South Africa it is still in its infancy (Subotzky & Prinsloo, 2011:178). Institutions such as the University of South Africa (Unisa), University of the Western Cape (UWC), University of Stellenbosch (US) and Tshwane University of Technology (TUT) conducted ongoing studies on student success.

It is imperative for the Vaal University of Technology (VUT) to understand the generic factors that might have an impact on the high drop-out rate of its students, and to develop a conceptual framework that will guide the institution’s interventions to address its high student drop-out rate. This might entail continuous processes for problem detection and appropriate actions that will ensure a higher success rate and a significantly lower drop-out rate. It is also imperative that the VUT should translate its knowledge on what we know about student success at the VUT into action. This study focuses on the student’s first year of study as it is viewed as the most vulnerable time in terms of academic failure. According to McInnis (2001), the first year is the time that students experience social, emotional and financial problems. It is also the time in which students should be supported in their movement through the phases of separation, transition and integration or incorporation (Tinto, 1988).

This study was informed by the literature study and completed research available with regard to student success on international as well as national levels. This study takes into account Tinto’s (2002:3) warning with regard to studies on student success at institutions of higher learning as “context-specific”. The assumption in this study is, therefore, what works in one context is not necessarily relevant in another context. According to Martinez (2004:1) the nature of studies on student success is either investigations in the factors that have an impact on drop-out rates or solutions to the problem. This study wishes to understand the generic factors that have an impact on drop-out rates, the interventions of some of the institutions of higher learning in South
Africa to enhance students’ success, and development of a conceptual framework which is suitable for implementation at the Vaal University of Technology (VUT).

The study team was established in 2011, and comprised two student support counsellors, a data analyst of the institution and a member of the quality promotion unit as study coordinator. The team decided to focus on the 2010 cohort students, because of the availability of statistical data, as well as the availability of qualitative management information of the 2010 cohort students. The team decided to utilise quantitative, as well as qualitative information in order to triangulate findings and to identify the possible major factors for student drop-out at University.

1.1 Summary of the findings and recommendations

The following is a summary of the findings and recommendations with regard to this study, these findings and recommendations should be read in conjunction with the detailed discussion of the empirical study, with reference to paragraph 8 of this report:

**FINDING 1**

93% of the first-year students, who dropped out, are of South African citizenship, while 7% are international students

**FINDING 2**

The majority [i.e.90%] of the students are from the Black student population

**FINDING 3**

61% of the first-year students, who left prematurely, are males. By comparison, 39% of the female population dropped out.
**FINDING 4**

The age group in which the most drop-outs occurred were from the 20 – 29 years age group, namely 52%.

**FINDING 5**

First-year students, who did not stay in official VUT student residences, had by far the highest drop-out percentage, namely 95%. By comparison, only 5% of the students who stayed in official VUT student residences dropped out.

**FINDING 6**

84% of the first-year student population in 2010, who were not NSFAS recipients, left prematurely, while only 16% of the students who were NSFAS recipients dropped out.

**FINDING 7**

The main campus had the highest drop-out percentage in 2010, namely 57%, while the satellite campuses totaled 43%.

**FINDING 8**

First-year students who obtained a performance average of 50% and above, showed a higher drop-out percentage [i.e. 54%], than the students who performed below 50 percent [i.e. 46%] of the student population under investigation.

**FINDING 9**

The faculty with the highest drop-out percentage, is the Faculty of Engineering [37%], followed by the Faculty of Management Sciences [29%], the Faculty of Human Sciences [20%] and lastly, the Faculty of Applied & Computer Sciences [13%].
FINDING 10

There is evidence of good relationships between lecturers and students but also strong evidence of a lack of sufficient student-lecturer interactions.

FINDING 11

Students are either self-motivated to complete their studies or receive their motivation from their parents, lecturers, family members or are motivated by their socio-economic circumstances.

FINDING 12

Participants that were first-generation students experienced a lack of understanding or empathy from their family members for the demands of being a student at an institution of higher learning.

FINDING 13

There were participants that were not motivated for the studies due to the fact that the VUT was not their first choice institution of higher learning or the fact that they did not study what they initially intended to study.

FINDING 14

The late payments of NSFAS funds can contribute to early termination of studies.

FINDING 15

Early termination of studies can occur due to the fact that students are not able to pay outstanding accounts.
FINDING 16

Students that came from families with a relatively low economic status category of family background are more likely to drop out.

FINDING 17

Students that are not successful in their application to study a specific course due to entry requirements are more likely to be less motivated.

FINDING 18

Students should be informed with regard to the availability and location of academic support services on campus.

FINDING 19

Potential VUT students should receive sufficient information on the different career opportunities, the range of VUT courses and general VUT information such as registrations, fees and entry requirements in advance.

FINDING 20

There are lecturers that implement unacceptable teaching and learning methods (reading from text books, no sufficient feedback on assessment, etc.) which is a transgression of the VUT teaching and learning principles of social constructivism.
FINDING 21

Teaching and learning and effective communication between student and lecturer can be hampered if lecturers have “foreign accents” or if they are not proficient in one of the major South African black languages (Sotho, Zulu or Xhosa).

FINDING 22

Resident accommodation provides a better study environment (study space, close to facilities and support) for students and alleviates problems such as transport.

FINDING 23

Student access to computers and printers, as well as the VUT’s high frequency of IT technical-related problems, contributes to teaching and learning problems.

FINDING 24

A campus that is not clean and has a lack of proper facilities, contributes to an environment that is not conducive for effective learning.

FINDING 25

Study load can be a factor that contributes to early termination of studies.

FINDING 26

There is a need for the implementation of a policy on class attendance/absenteeism.
FINDING 27

The early warning system is not utilised effectively to identify and track at-risk students

The following recommendations can be considered by the institution:

Recommendation 1: EARLY ASSESSMENT OF FIRST-YEAR STUDENTS

Ensure that all first-year students are assessed during the first 6 weeks in order to identify at-risk students. NBT/GSAT tests should be taken by all first years and the results should be accessible to the relevant staff. Staff members should be trained on the utilisation of the early warning system of the VUT.

Recommendation 2: AWARENESS OF A STUDENT’S “AT-RISK STATUS”

Students should be aware of their “at-risk status”. Their parents and the relevant academic and support staff should be informed as early as possible. The at-risk students should also know the possible factors that might have an impact on their performance and the actions that they can consider in order to enhance academic success.

Recommendation 3: DEVELOP STRATEGIES TO INSTITUTIONALISE THE PRINCIPLES OF INVITATIONAL EDUCATION

Student-lecturer relationships that are mutually respectful and supportive can be developed by introducing the principles of Invitational Education. Invitational Education provides a framework to transform the fundamental character of the institution and centres on the four guiding principles of respect (everyone is able, valuable and responsible to be treated accordingly), trust (education is a cooperative and collaborative activity), optimism (people have untapped potential) and intentionality (creation and maintaining of “inviting” places, policies, processes by staff and students that are
intentionally inviting with themselves and others by focusing on respect, trust, optimism
and intentionality.

Recommendation 4: IMPLEMENT STRATEGIES THAT WILL ENHANCE THE
INTERNAL AND EXTERNAL ASPECTS OF STUDENT MOTIVATION

Practices that help students to feel that they are valued such as strategising with at-risk
students, the adoption of effective teaching styles, informal student-lecturer interactions,
positive feedback to students, the creation of open and positive class atmospheres, an
environment that is conducive for effective learning, etc., should be considered.

Recommendation 5: IMPLEMENT NEW INITIATIVES WITH REGARD TO THE
FUNDING OF STUDENTS

Regarding the post-registration variables, the lack of financial support is the second
highest reason for premature departure at the VUT. Therefore, strategies should be put
in place to alleviate the problem by developing a communication plan to reach potential
students at schools and provide information on funding available for tertiary studies and
in scarce skills training. Relevant documents should be accessible (online). NSFAS
officers should be visible and available to assist applicants during registration period. An
electronic agreement form system should be considered in order to process and
administer NSFAS funding. NSFAS officers should receive training.

Recommendation 6: IMPLEMENTATION OF THE NEW LANGUAGE POLICY AND
RELATED INITIATIVES AT THE VUT

The development of African languages at university is a national imperative according to
the 2008 Report of the Ministerial Committee on Transformation and Social Cohesion
and the Elimination of Discrimination in Public Higher Education Institutions. Initiatives
such as policies and strategies should address the feeling of marginalisation by English
second language speakers on campus. The current development of a new language
policy and the implementation of strategies to enhance multilingualism at the VUT may address the problem.

**Recommendation 7: IMPLEMENTATION OF THE TEACHING AND LEARNING MODEL OF VUT**

The social-constructivist approach of education followed at VUT makes it imperative for all academics to engage students in learning activities (learn-by-doing). This active learning approach will eliminate the proliferation of the use of text books as the only source of teaching. Implementing an appropriate assessment strategy will ensure that timeous feedback is given to students.

**Recommendation 8: THE ESTABLISHMENT OF A FACULTY FIRST-YEAR ROUND TABLE BASED ON A MULTIDISCIPLINARY APPROACH**

The establishment of a First-year Roundtable should be considered as a multidisciplinary approach to discuss and realign/adjust the initiatives of the VUT as a process in enhancing academic success. Staff (academic non-academic, and professional support units) and students should deal with all the activities that impact on the academic success of the first-year students. This forum may ensure that first-year students, support services and academics complement each other. Meetings should be conducted at least once a semester. Gaps and duplication of initiatives can be avoided by means of a well coordinated system and informed stakeholders. This approach will enhance the institution’s knowledge of the student and the students’ knowledge of the institution.

**Recommendation 9: REVISION OF THE RESIDENCE POLICY AND APPLICATION PROCEDURES**

As is clear from the quantitative study, the most urgent matter that needs to be addressed is the high drop-out rate (i.e. 95%) of the first-year students who make use of
private accommodation. Every effort should be made from the start to ensure that strategies are put in place to positively integrate first-year students (particularly non-resident but also resident students) into the academic and social communities of the VUT, as this enhances retention. Furthermore, urgent attention should also be given to the building of more VUT residences. First-year students should receive priority for residential accommodation. The current policy should be revised.


The revision of the current system should be considered which includes the evaluation of the fitness of the IT system, the effectiveness and impact of the implementation of NBT and GSAT (aptitude) initiatives, the implementation and impact of the tracking system followed by a process of adjustments and remedial actions. The outcome of this exercise should inform the development of a policy enforcing the capturing of test marks at least 10 days after assessments should be considered. The training of staff to effectively utilise the system is imperative.

**Recommendation 11: THE INSTITUTION SHOULD DEVELOP A POLICY ON CLASS ATTENDANCE AND ABSENTEEISM**

Further research on absenteeism at VUT should be considered as well as the development of a policy and strategies to deal effectively with class attendance.


The development of a framework on student success should be informed by the literature study with special reference to the systems theory, the readiness theory, the transition theory, the longitudinal model of Tinto, the psychological model of student
retention and Spady’s sociological model. As already mentioned in this study, the mutual responsibility of student and institution is imperative in the transformative process of student success. As discussed earlier in this study (Tinto, 1988:439) the process of student departure refers to the first phase of the concept “university journey”. Subotzky and Prinsloo (2011:185) refer to numerous interactions between student and institution during this journey as the “student walk”. The interactions between student and institution should be mutually constitutive. The recommendation is that the VUT should develop a hypothetical framework on the notion of student success through a collaborative process.

Recommendation 13: ENSURE THAT THE STUDENT SUPPORT SYSTEM CONTRIBUTES TO THE TRANSITION OF FIRST-YEAR STUDENTS FROM A PHASE OF SEPARATION TO INCORPORATION AS NEW MEMBERS OF VUT

Mechanisms should be in place in order to support students in their “separation” phase when they depart from their past associations (high school environment) and adopt the behaviours and norms that are appropriate to the new institutional membership (VUT student). During the transitional stage, the student should learn the knowledge and skills that are required in order to succeed as a member of VUT. An example is the Tutor System VUT that must be expanded in order to include all first-year subjects.

1.2 Limitations of this study

The following can be regarded as limitations to this study:

- The study team decided not to utilise structured questionnaires to collect data from the 2010 cohort dropout student population during the empirical phase of this study. The utilisation of this data collection method during similar studies conducted by universities on national level (e.g. Tshwane University of
Technology) shows a very low response rate. Some of the reasons for a low response rate might be a lack of interest, commitment or loyalty to the institution, lack of physical facilities (post offices), etc. By collecting quantitative data from a sample of the study population could have helped the team to identify certain patterns and trends that might merit further exploration by utilising qualitative methods.

- The empirical findings of this study were triangulated with data and information gathered during quality assurance exercises of 2010. The value of this study for satellite campuses could have been enhanced by utilising all satellite campuses’ information and data and not only the data and information of the Secunda campus. The latter (together with quality management information and data of the Vanderbijlpark campus) was utilised in this study due to the fact that the Quality Promotion Unit completed quality assurance exercises at the Secunda campus in 2010.

- Focus group interviews were held with dropout students of the Gauteng region due to practical and financial reasons. The value of the qualitative information gathered by means of focus groups could have been enhanced if it was possible to conduct focus groups with populations that represent other regions as well.

- This study did not distinguish between academic failure and voluntary withdrawal or permanent withdrawal and temporary withdrawal.

2. LITERATURE STUDY: FACTORS INFLUENCING STUDENT THROUGHPUT

Institutional literature offers, according to Prinsloo (2009:6), an “uncertain picture of the myriad factors influencing student throughput in which the factors are contextual, dynamic, interdependent and often non-academic”. The complexity of finding the factors that might contribute to student drop-out is evident in the remark of Hall (2001) with regard to his study on student retention rates. Hall states that retention rates differ by sector of education, by age of students, by level of course, subject of course, socio-economic group and institution. Hall’s opinion (2001) concurs with that of Prinsloo (2009), i.e., as already mentioned, that the factors for student drop-out are complex and multiple. Some of the reasons, according to literature, are the demands of different
programmes, social integration and teaching styles. According to Prinsloo (2009:17), the factors that influence student drop-out can operate on individual student level (motivation and ability and other personal characteristics and circumstances), on institutional level (quality of advice, guidance and general quality of provision) and on supra-institutional level (finance and other socio-economic factors).

According to Rossouw and Wolmarans (2002), most of the drop-out students at institutions of higher learning are pursuing the so-called “quantitative subjects” such as mathematics and science. He emphasises that universities are admitting students to enrol for courses that they are not capable to handle successfully. Kunisawa (1988:63) emphasises the fact that good education and work habits must be taught at home. Mutula’s research (2001:5) emphasises that drop-out students experience most often problems that are external to the institution. The latter reminds of Prinsloo’s statement that the reasons are usually non-academic of nature (Prinsloo, 2006:9). The problems “external” to the institution have a negative impact on their will and desire to stay in tertiary institutions (Mutula, 2001:5).

Prinsloo (2009:18-19) refers to a comprehensive list of examples of variables that have been researched in student throughput (i.e. the number of undergraduates that complete their studies in the prescribed time), without claiming that they are representative of either all research, or all variables:

- Demographic factors (age, gender and race)
- Different models of student learning
- Self-authorship and autopoiesis
- Students’ ways of knowing and ways of learning
- The impact of the curriculum
- Lecturer and student perceptions regarding success and failure
- The role of motivation, attribution and stress in student success
- Poor academic results prior to entering the university
- Student perceptions regarding the module/course/success
- Personality types
• Matriculation exemption
• Confidence and over-confidence
• Financial and family problems
• Not having clear career goals
• Reading skills and prior experience in mathematics
• Poor social integration
• The impact of students’ locus of control or autopoiesis
• The tensions that arise between differences between the life worlds of students, higher education as systems and the discipline-specific discourses
• Different poverties using the work of Max-Neef as heuristic

The above-mentioned variables emphasise the vastness of research into student throughput and success in higher education on both national and international levels. A study conducted in the USA and Canada in 2008 by the Educational Policy Institute (EPI, 2008) regarding student persistence and barriers, provides rich literature regarding student retention and throughput. The literature study conducted in our study reveals the following factors or possible variables that have an impact on student success (some of the variables concur with the above-mentioned factors):

2.1 Language

Students that learn in a second and third language experience the language of teaching and learning as a barrier (Engelbrecht & Green, 2001:191; Van Wyk & Crawford, 1984:8). This concurs with the finding of Eiselen and Geyser (2003:120) that a certain threshold of English proficiency, and linguistic and study skills (Nkosana, 1993:29) are imperative factors for ensuring academic success. According to Vecchio and Guerrero (1995:4) students should be proficient in the language in which they are taught. They should be able to ask questions and understand their lecturers. They emphasise the importance of language skills as a contributing factor to proficiency with reference to reading (capture, comprehend and interpret text), listening (understand the language of the lecturer, follow instructions, extract information with regard to what the lecturer
communicated), writing (produce written text), and speaking (communicate effectively during discussions, tutoring sessions, etc). The latter concurs with Pellino’s remark that students with English as a second language usually find it difficult to participate effectively in classes due to the fact that they fail to express themselves, and this contributes to a high drop-out rate.

Sekhukhune (2008:77) analysed a number of scripts of students in higher education. In his findings he indicates a high percentage of participant students’ lack of writing skills. Many lecturers found it difficult to understand what the students want to say due to their lack of writing skills. 70% of the students that participated in Sekhukhune’s research indicated that they have a problem with English as medium of instruction (Sekhukhune, 2008:78). Some students will answer questions in their mother tongue, others abstain from classes when they have to make presentations because of fear that they cannot express themselves; some prefer to ask questions after lectures because it is for them too embarrassing to talk in front of their fellow students; others struggle not only with English but also with subject terminology, etc. In his analysis of scripts, Sekhukhune shows how the learners misinterpreted questions that they fail to understand. Accounting students, for example, might fail to understand the difference between common concepts such as “inclusion” and “deduction”.

Bohlmann and Pretorius (2002) conducted a study with regard to the relationship between reading skills in English and the success in elementary mathematics, and concluded that there is a significant relationship between students’ reading ability and their success in mathematics. They state that, although reading ability does not guarantee performance in mathematics, poor reading skills should be regarded as a barrier to success in mathematics.

A prediction study was conducted by Hendrich (2004:139) at the VUT, This study highlighted “the undisputable critical role that English language proficiency plays” in the academic success of the VUT’s first-year students. This aligns with a similar study that was conducted in 2010 (Hendrich, 2011:18). From this study it can be concluded that
English language competency is the best predictor of first-year academic success for two of the VUT’s four faculties i.e. the Faculty of Applied & Computer Sciences and the Faculty of Management Sciences.

2.2 Finance

Jones, Coetzee, Baily and Wickham (2008) suggest that the psychological stress of economic challenges plays a vital role in developing countries such as South Africa. A major factor for the high drop-out rate at South African universities is due to financial reasons (Macfarlane, 2006:6). Institutions of higher learning in South Africa are characterised by a large number of students that come from a poor financial background. The majority do not have the financial means to access tertiary education (Roberts, Gouws & Van der Merwe, 2006:228). The financial support from NSFAS is not sufficient as it covers only tuition fees, books and accommodation.

Table 1: NSFAS-supported students in higher education (1996-2003):

<table>
<thead>
<tr>
<th>YEAR</th>
<th>TOTAL ENROLMENT</th>
<th>NSFAS SUPPORTED</th>
<th>% NSFAS SUPPORTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>576 872</td>
<td>67 709</td>
<td>12%</td>
</tr>
<tr>
<td>1997</td>
<td>580 060</td>
<td>64 433</td>
<td>11%</td>
</tr>
<tr>
<td>1998</td>
<td>591 831</td>
<td>67 598</td>
<td>11%</td>
</tr>
<tr>
<td>1999</td>
<td>585 234</td>
<td>68 416</td>
<td>12%</td>
</tr>
<tr>
<td>2000</td>
<td>590 153</td>
<td>71 080</td>
<td>12%</td>
</tr>
<tr>
<td>2001</td>
<td>652 421</td>
<td>80 593</td>
<td>12%</td>
</tr>
</tbody>
</table>
Table 1 shows that only between 11% and 13% of the total enrolments between 1996 and 2003 received NSFAS support. An average of 70% of the families of drop-out students are in the low economic-status category, according to Letseka and Maile (2008:6). Many of the students are dependent on the financial support of their parents and guardians, who earn less than R1 600 per month, and the supplement that they receive from NSFAS.

Many students from low income households do not have enough funds to afford food, and this has a negative impact on their academic development and performance (Sekhukhune, 2008:59). The outcome of Sekhukhune’s (2008:79) research shows that as many as five of the ten students that dropped out in his study indicated that they had to terminate their studies due to the fact that NSFAS did not pay all the outstanding fees, that they could not find ways to pay outstanding fees and that they were therefore not in a position to receive their results which is imperative to register for a next academic year.

2.3 HIV/AIDS

De Ruyter (2007:1) refers to students that are encountering family problems due to the HIV pandemic which creates family break-ups. Institutions of higher learning should establish the necessary support services in order to combat a high drop-out rate amongst students that are victims of HIV/AIDS.
2.4 Poor schooling system

Hedley (1968) refers in his study to the impact of student’s “inadequate preparation” as a result of poor quality of instruction, facilities, curriculum and grading standards at secondary school levels. Many students are not prepared for the minimum requirements by institutions of higher learning (Hovdhaugen & Aamodt, 2005:5). This tendency necessitates institutions to render a range of academic support measures. In South Africa many high school students are under-prepared for tertiary education (Macfarlane, 2006:6; Donnelly, 2003:1). They cannot adjust to the teaching styles of higher education and find it difficult to cope with the load of work. Many high school students that enter tertiary education cannot write properly. There are speculations and concerns that final marks are artificially inflated in order to boost matriculation results (Sekhukhune, 2008:67). Many matriculation certificates are false. Umalusi (Quality Assurance Council in General and Further Education and Training) found that out of every 100 matriculation certificates that they verified, an average of four are to be found to be false (De Ruyter, 2007:1).

Because of the fact that institutions of higher learning are inheriting weak school products, they have to invest in academic support initiatives in order to bridge the gap between a poor schooling system and higher education (Sekhukhune, 2008:68). According to Roberts, Gouws and Van der Merwe (2006:227), as well as Dawes (1999), the poor school system in South Africa has a negative impact on the resource of tertiary education. Black students are usually disadvantaged in the selection system for higher education as a result of unequal schooling and the fact that they experienced unfavourable and disadvantaged conditions as junior and secondary school learners (Dawes, Yeld & Smith, 1999). The poor school education in South Africa, especially in the black rural areas, contributes to the marginalisation of many blacks in the country (Bloch, 2006:4) and should be regarded as barriers to sustained growth and reduction of poverty in the country.
2.5 Living conditions

The study of Burnett (1955:6) and Kuh (1994:4) emphasises the impact and importance of living and learning conditions at institutions of higher learning on students’ critical thinking and intellectual development. Students that took part in a study conducted by Nyondo (1998:3), indicated that the lack of space to study at home and the conditions of the students’ neighbourhoods are conditions that are not conducive for effective study. Sekhukhune (2008:63-64) emphasises inadequate availability of student accommodation as a factor for high drop-out rate from universities in South Africa. This concurs with research that was conducted by Njoku (2002:2) with four institutions of higher learning in Namibia. According to Njoku (2002:2), the availability of reading and writing desks, of food, clean water and a clean environment are high priorities for constituting a good learning environment.

2.6 Teaching and learning

2.6.1 Learning preferences and teaching styles

It is a given that students learn in different ways (Visser, McChlery & Vreken, 2006: 97). The preferred learning approach may be a factor that has an impact on students’ academic performance (Allison & Hayes, 1988:273). Lectures may therefore introduce learning experiences that do not match with the students’ learning preferences. These mismatches between students’ learning and teaching styles can have an impact on the students’ motivation. It can discourage them and lead to underperformance and a high drop-out rate (Visser et al., 2006:98; Felder & Silverman, 1988:19). Researchers such as Rush and More (1991:19) and Kowoser and Berman (1996:215) are of the opinion that mismatches can have certain benefits for learners, such as overcoming weaknesses in the learner’s cognitive styles, the development of an integrated approach to learning and the stimulation of learning and flexible learning. Prebble, Hargraves, Leach, Naidoo, Suddaby and Zepke (2005:6) emphasise the difficulty that learners experience in adjusting to independent learning as university students.
It is imperative that lecturers adopt approaches with regard to assessment and modes of delivery (Sangster, 1996:135), and teaching that will enable the students with different learning styles to learn more effectively (Visser et al., 2006:97). According to Butler (1988:36), educators should identify individual learners’ learning styles in order to enhance course design and to choose appropriate learning outcomes.

2.7 Learning environments

Koen (2008:23-33) identifies institutional context, i.e. social climate, physical setting, etc. as variable for student success. Koen states that students that do not enjoy strong social interaction with academics and fellow students are more likely to drop out (Koen, 2008:33-34). There is also a strong link between the relationship of learners to physical environments. Fulton (1991:14) emphasises the importance of learning environment in terms of how it facilitates human interactions. Brooks and Kaplan (1972:373) emphasise the effect of the physical environment on human behaviour and perception.

2.8 Student self-motivation and commitment

According to Koen (2008:34), a student’s motivation, aspiration, expectations, intentions and study plans play a vital role in academic success. Students’ lack of motivation has a negative impact on their academic success (Scott et al., 2007:39-40).

2.9 First generation students

According to studies conducted in the United States by Spady (1967, 1970), “family origin” (Spady, 1970:69) as measured by father’s graduation, has had an increasing influence on university completion rate over time. Family background has the greatest
influence on an individual’s decision to go to university. Better educated parents enjoy more open and supportive relationships with their children.

2.10 Interaction between student characteristics and institutional characteristics

Pascarella and Terenzini (1980) examine the process of how a student’s characteristics fit or interact with the institutional characteristics in order to affect persistence. This argument concurs with Bean and Metzner’s (1985) argument that where perceptions and experiences are favourable and consistent with the goals of a student it is more likely that the student will stay, whereas if they are unfavourable and inconsistent with his/her goals, the student may drop out. These decisions to depart or to stay are not entirely a result of academic and social integration or organisational efforts, but depend on the quality of fit between the student and the institution as well. According to Tinto (1975), students have certain characteristics such as their school achievements, family support and motivation, socio-economic status, ethnicity, etc. that they bring into a university. These characteristics influence their levels of commitment to an institution “and promote attendance and graduation” (Harvey-Smith, 2010:3).

2.11 Student-staff interaction

A significant “non-cognitive factor” (besides factors such as institutional leadership, finances, social interaction, student characteristics, student services/support, etc.) that affects academic success and retention is student-staff interaction (Harvey-Smith, 2010; Love, 1993). Student-staff interaction enhances student satisfaction and eradicates feelings of isolation (Love, 1993).
2.12 Quality of learning experience

Students will persist, according to Noel (1987), if students have a positive academic experience, but if the experiences are negative, it is more likely that they will drop out of an institution. In the latter case they receive a message by means of their negative experiences that they are “rejected”.

2.13 Study methods

Students that study in a disciplined way, utilising effective study methods and applying time management, are more likely to be more successful in their studies (Eiselen and Geyser, 2003:128).

According to De Ruyter (2007:1), the implementation of effective support initiatives will combat high drop-out rates at institutions of higher learning.

2.14 Absenteeism

According to McCann and Austin (1988:3), institutions of higher learning should be able to identify students that are likely to drop out. The study of Bowen (2005) emphasised that students who attend classes regularly are more successful than those who are frequently absent. This includes factors such as poor performance, difficulty to identify with other students and absenteeism. According to Segal (2008), absenteeism has a negative impact on the teaching-learning environment and affects the well-being of classes. Lecturers have to rework with students that were absent, thus time is wasted. From a quality point of view absenteeism is a waste of resources, time and human potential (Wadesango & Machingambi, 2011:89). The absent students are missing valuable peer-lecturer interactions and clarification of concepts which cannot be
replaced by means of reteaching (Williams, 2000). A student’s motivation to attend classes is much lower if lecturers don’t care about absent students or are not following up on absences (Enomoto, 1977). The following are possible factors that contribute to absenteeism (Mayer & Mitchell, 1996; Weller, 1996; Williams, 2000; Marburger, 2000):

- The curriculum is not interesting or challenging
- The student has a negative self-image
- The student is not interested in studies
- No confidence in the lecturer
- Inadequate teaching skills
- Relationship between the student and lecturer is inadequate
- Distance from university

Newman Wadesango and Severino Machingambi (2011) conducted a study on the causes and structural effects of student absenteeism that is relevant for this research. They investigated the extent of student absenteeism in three South African universities. They explore the reasons why students are absent and examine the implications of absenteeism. The following are the research findings of Wadesango and Machingambi (2011:90-96):

2.14.1 Incidence of Absenteeism

From the research figures (rate of absenteeism), it became clear that student absenteeism is a critical problem at the three universities. This might contribute to the universities’ general low performance and throughput rate.
2.14.2 Non-attendance due to part-time jobs or other work-related commitments

As many as 65% of the respondents have part-time jobs, which emphasise the impact of socio-economic factors on absenteeism and student success. The degree of work-related absenteeism reveals that more than 35% of the respondents miss more than 20 notional hours per week due to their work-related responsibilities. The respondents indicated the following reasons for their commitment to part-time jobs or other work:

- Tuition fees
- Residence fees/ accommodation fees
- General upkeep
- Transport

Therefore, absenteeism also has a socio-economic character. Most of the respondents were foreign students, students from poor families and self-sponsoring students.

2.14.3 Non-attendance so as to catch up on, or completing work in connection with studies

Many students are absent due to their pressing study-related activities. As many as 67% of the respondents indicated that they were absent several times in order to catch up with work, to study for tests, or to complete assignments related to their studies. In such a case they either stay at home, or they come to the university and identify a quiet place such as a library or free venue to update their work. It is therefore clear that absenteeism should not be viewed as simply a sign of lack of motivation, but rather as a sign that the institution’s support systems are inadequate (Wadesango & Machingambi, 2011:92). It might be that the support systems are failing to equip and capacitate the students with the required skills to cope with their studies.
2.14.4 Non-attendance due to lecturers whom students dislike

Factors such as poor teaching styles by lecturers, boring lectures and lecturers showing “favouritism” to certain students are mentioned as reasons for absenteeism. This concurs with the study of Weller (1996) and his finding that demeaning teacher attributes lead to absenteeism.

2.14.5 Non-attendance due to uninteresting courses/subjects

Some students are absent from classes due to the fact that they dislike courses or part thereof. As many as 58% of the respondents in Wadesango and Machingambi’s (2011:93) study indicated that they were absent due to the way in which lecturers are teaching or delivering classes. The “running thread” on this aspect was that, according to respondents, lecturers were “boring”. Most lecturers, therefore, fail to generate their learners’ interest or succeed to motivate them. Motivation is correlated to student attendance as well as student success and throughput (Wadesango & Machingambi, 2011:93).

2.14.6 Missing classes so as to be with friends and peers

40% of the respondents admitted that they were absent from classes because they rather would be in the company of their friends.

The research of Wadesango and Machingambi (2011) emphasises that lecturers can contribute to the problem of absenteeism. Poor lecturing, poor quality of lecture content, conflicting relationships between students and lecturer, and differing goals of students and lecturer are mentioned. Key factors for absenteeism are poor teaching strategies and unfavourable learning environments, poor socio-economic backgrounds, peer influence and interpersonal relationships between staff and students. Institutions should
therefore explore creative techniques which are not only the responsibility of the lecturer but also that of the institution. More attention should be given to the quality of education, the working environment of the staff, and the effectiveness of an institution’s quality assurance system in order to detect how well lecturers are functioning, etc. Students should also receive support with regard to issues such as time and study management skills in order to avoid student absenteeism as a result of their efforts to “catch up” with work. Students should therefore be equipped with appropriate styles of learning and how to manage academic pressure. Student support services should therefore be intensified so that students are assisted in making sound decisions that relate to their studies.

3. STUDENT SUPPORT

Ngidi (2005:1) highlights the importance of governments to make resources available for institutions to provide the necessary support structures for students in order to combat the high drop-out rate. The majority of institutions of higher learning assist their students to achieve their full academic potential and to complete their studies within the minimum period required. Institutions use different strategies and interventions in order to reach this goal. The following are typical interventions of institutions of higher learning to combat institutional high drop-out rates:

3.1 Campus environment

Prebble, Hargraves, Leach, Naidoo, Suddaby and Zepke (2005:62) emphasise the importance of institutions of higher learning of being committed to the students’ total wellbeing. Institutions that create a welcoming environment provide them with a sense of community and belonging. The students usually feel safe in environments where there is an absence of prejudice or harassment and which offer a range of campus activities (Sekhukhuni, 2008: 62). The interaction between students and the campus environment affects to a great extent the physical behaviour of students as well as their
perceptions and attitudes toward the campus environment. This interaction between students and their campus environment constitutes a student-institution relationship which has an impact on student satisfaction, academic achievement and persistence (Harvey-Smith, 2010:6).

3.2 Student services

The availability and accessibility of student services predict to a great extent student persistence and retention (Harvey-Smith, 2010:8). Students’ participation in student unions, as well as their involvement and integration into campus activities, corresponds with their commitment and increases retention. Formal student services such as student counselling, which includes a wide range of services such as individual consultations and career guidance, should not be underestimated as factors that contribute to increase student retention.

3.3 Tutor and peer mentoring system

Institutions of higher learning have various kinds of tutoring systems as mechanisms to respond to the needs of their students. Tutoring may range from mentoring, curricular tutoring, academic tutoring and training-related tutoring (Simão, Flores, Fernandes & Figueira, 2008:74).

3.4 Lunch-hour skills workshops

The University of Western Cape offers their students peer mentoring programmes and lunch hour workshops. The lunch hour workshops offer students at the UWC campus the opportunity to explore the best ways to develop their personal and academic skills. Key aims of these workshops are to motivate and to inspire their students. The aims of the peer mentoring programmes are to assist the students to adjust to university life, to
support at-risk students academically, and to offer senior students opportunities for developing and enhancing their skills as role models to other students (UWC, 2011:2).

3.5 Dedicated faculty academic development practitioners

Eiselen and Gerber (2003:128) state that at-risk students feel more insecure and need personal attention and assistance. Some institutions will allocate academic development practitioners to various faculties in order to support students with regard to study methods, time management, reading skills, improvement of English proficiency, comprehensive academic skills assessment through the identification of at-risk students and - as already mentioned - tutorial classes, etc. (Sekhukhune, 2006:60, 61).

Researchers such as Simpson (2003:17-19) suggest that students that are at risk should be made aware of their “risk status”. Institutions such as the Open University developed a system for students (by means of questionnaires) in order to make the students aware of the factors that might have an effect on their performance, also to point to actions that the student should consider in order to enhance academic success.

Subotzky and Prinsloo (2011:183) state that mutual responsibility depends on mutual engagement between institution and students which in turn depends on actionable mutual knowledge. Qualitative and quantitative intelligence (student- and institutional-related intelligence) should be used to identify, predict and address risks effectively. This requires student profiling, tracking of trends in student activity, behaviour and institutional practices and services. They emphasise that an effective tracking system should “go beyond the conventional provision of quantitative student cohort academic data” (Subotzky & Prinsloo, 2011:183), but also incorporate these sources and intelligence to predict risks. Students should take part in planned self-assessment of risks, constituting a mutual process.
4. THE RURAL EDUCATION ACCESS PROGRAMME (REAP) REPORT: A CRITICAL REFLECTION ON THE FINDINGS AND RECOMMENDATIONS TO INSTITUTIONS OF HIGHER LEARNING

The key findings of the REAP 2008 study with students from rural areas in South Africa will be discussed, followed by the reflection on the report during a colloquium that was held at the University of Western Cape (UWC) in 2009. The study explores two key questions with regard to specifically students from the rural areas, i.e. the factors that inhibit or facilitate disadvantaged undergraduate students to complete their studies, and it determines the recommendations that can be made in order to improve access and the completion of undergraduate studies by disadvantaged students. What is valuable of this study is that it is relevant to the South African context of higher education.

The REAP report is relevant for this study because there are similarities between the rural disadvantaged student and a large percentage of the VUT students that struggle financially, academically as well as socio-culturally when entering the institution.

4.1 Key findings of the 2008 REAP study report

According to REAP (2008:5-6), a rural background may have a negative impact on student success. REAP (2008:5-6) stated that financial resources are a major reason, to drop out, according to the students that participated in the study. The 2008 report states that although students from disadvantaged backgrounds are usually underprepared for tertiary education, the preparedness of the institutions to accommodate underprepared students is sometimes questionable (REAP 2008:6).
REAP (2008:8) refers to the following factors that restrain students’ success:

- Poor academic and social preparation for higher education in school
- Universities offering inadequate teaching and learning support
- Medium of instruction in second or third language
- First generation receiving tertiary education

The study reveals that the students lack exposure to written and spoken English, which has a negative impact on their language competency at an institution of higher learning. The lack of availability of resources such as books and newspapers to the students and their families at home as well as no access to computers and internet is mentioned as contributing factors.

The report recommends that institutions should be able to identify students that are at risk early in their study career. Institutions should be able to track and to monitor their progress and evaluate the effectiveness of support systems and programmes offered by institutions (REAP 2008:11). The report emphasises the importance of effective marketing of institutional support services to students, as well as the integration of the awareness of these services into the curriculum in order to contribute to the destigmatisation of these services.

4.2 2010 Colloquium reflection on the REAP 2008 report

The colloquium was jointly organised by REAP and the Centre for Student Support Services at the University of Western Cape on 26 May 2009.
4.2.1 Issues to be considered by institutions to enhance throughput:

The following issues were mentioned as important points for institutions of higher learning to consider in enhancing student throughput (REAP & UWC, 2009:1):

- Students from a low income group family tend to start tertiary education underprepared in comparison with students from affluent backgrounds.
- Low-income group students have fewer academic resources than their peers and are less likely to succeed in their studies.
- There is no long-term solution for retaining underprepared students from a low income group unless institutions of higher learning find ways to address the students' holistic experience.

4.2.1.1 Key aspects in enhancing student success

The following are key aspects that were mentioned during the discussions:

- Tracking and monitoring of first-year students are imperative in identifying at-risk students.
- Technology can be creatively utilised in order to improve on teaching and learning, to track and monitor students and for research-based strategic planning.
- As mentioned above, there is no long-term solution to the problem of retaining underprepared low-income students unless institutions find a way to address their holistic experience (REAP & UWC, 2009:1).
The following key issues emerged from the colloquium:

- Institutions of higher learning should be able to monitor and track first year students’ progress in order to identify students at risk.
- Technology should be utilised to improve teaching and learning, tracking and monitoring.
- A sense of belonging and a sense of personal identity are important factors that facilitate learning.
- Communities of learning should be created, i.e. small group learning. Small group learning enhances a sense of belonging for disadvantaged students and develops personal identity.
- Learning spaces should be available as they provide opportunities for learning outside the classroom.
- A wide range of interventions are needed to address student needs holistically. These activities should be integrated within the academic curriculum and the total student experience.
- A coherent institutional response with systemic integration of programmes and interventions across the institution is needed for real transformation to enable student success.
- Student success is “shared responsibility”.

With regard to the findings of the REAP 2008 study, the following three “umbrella themes” or factors that have an impact on student success were identified:

- Financial factors: Registration, tuition and accommodation fees, expenses such as books, food, equipment, travel, clothes, etc. Many rural students cannot afford to spend holidays at home due to financial reasons. This contributes to emotional pain and feelings of isolation and alienation.
- Academic factors: The rural students that took part in the study needed to read and write in a second or third language. They are also struggling with academic literacy issues, educational technology, independent study, conceptual issues, etc (REAP & UWC, 2009:3). They are lacking independent writing and learning
skills. They found ways of studying that enable them to pass grade twelve but they lack the necessary critical and reflective skills that are required for tertiary study.

- Socio-cultural factors: The students lack role models and have feelings of isolation and alienation in a new environment. Other issues are high frequency of dealings with loss and bereavement.

The findings emphasised that, although institutions of higher learning offer support services to their students, the students in need do not know about the services rendered, or they may find them culturally irrelevant, or they do not utilise them due to social stigmas that are attached to them.

The REAP study finds that some students do not attend orientation, because they had to solve registration issues, try to attend to accommodation and financial matters or they are not aware of the orientation programmes. Some students attended orientation programmes but it seems that the programmes are “too general to be meaningful” (REAP & UWC, 2009:3). Many institutions assume that it is the responsibility of the student to “fit in” the new higher education environment, while many students regard institutional norms and culture as alienating. For the purpose of this study, the REAP research shows a gap that exists between institutional intentions and the reality that is experienced by the student. It emphasises the gap between the mission of institutions and the implementation of the mission.

4.2.1.2 Effective tracking and monitoring system

One of the key notions in the REAP report is the tracking and monitoring of first year students in order to identify at-risk students. This concurs with the statement of McCann & Austin (1988:3). During the colloquium, the following suggestions were made to institutions as typical response to implement an effective tracking and monitoring system (REAP & UWC, 2009:4):
• At-risk students should be identified prior to entry. It is usually too late to identify students at the end of the first term.
• First year students should receive priority for residential accommodation,
• Mentors for first year students should be appointed in the first week of an academic year.
• Communication that is proactive, immediate and ongoing with at-risk students as well as support services is imperative.
• Support services that talk to and complement each other in order to prevent gaps and duplication should be integrated and well-coordinated.
• Staff and student knowledge of support services should be increased.
• Support services should be normalised so that they become a part of students’ everyday lives.
• Ongoing communication between academic and support staff is imperative.
• There should be rigorous comparisons between institutional mission and achievements.
• Decision making needs to be based on data and information collected in monitoring and evaluation activities. This should inform the revision of policies, strategies and budgeting exercises.

Subotzky and Prinsloo (2011:185) argue that for the student knowledge of the institution is imperative in order to master the requirements of higher learning during his/her journey. This knowledge of the institution refers to the student’s informed choice of qualifications, courses and course loads, understanding and meeting learning and assessment expectations, and mastering the range of requisite competencies (time management, self-study skills, determination and self-discipline). It also entails knowledge of how to access and receive guidance from lecturers, tutors, counsellors, administrators and library staff. An institution should utilise the knowledge of the student by understanding and addressing the needs, attitudes, behaviours, backgrounds, readiness and risk factors that they collected. This mutual knowledge should be translated into effective action at the different stages of what they called “student walk” (Subotzky & Prinsloo, 2011:186).
5. INTERVENTIONS OF INSTITUTIONS OF HIGHER LEARNING IN SOUTH AFRICA

5.1 The development of a first year academy at the Stellenbosch University

The First Year Academy (US, 2011:1-2; REAP & UWC, 2009:6) was established at the Stellenbosch University as a systemic-holistic and institution-wide process where staff and students participate in re-aligning and rethinking the activities of the Stellenbosch University that impact on the academic success of the first year students. The First Year Academy (FYA) model is based on the systems theory (REAP & UWC, 2009:6). This underpinning theory ensures that interrelationships within the university are elevated over individual elements. The FYA is an integrated, transdisciplinary approach at the Stellenbosch University. The university’s management supports the initiative and provides the necessary resources. The FYA has the following three components:

5.1.1 First component: early assessment of all first year students

Students are assessed within the first six weeks. This enables the university to identify the at-risk students and to arrange the necessary interventions. Early Assessment tests give the university a good indication of which students are at-risk in certain modules (CTL 2011:1). The assessment results are disseminated to the students, the respective faculties and family members. The results inform discussions and critical reflection in order to transform teaching and learning as well as assessment practices. The US utilises a tracking and monitoring system that indicates the students’ progress across all subjects.
5.1.2 Second component: Opening up learning spaces

The university ensures adequate learning spaces are available because “a great deal of learning takes place outside of the classroom” (REAP & UWC, 2009:6). The university established “ResEd” programmes. The latter are interventions of the university to allocate learning spaces within the residences to address the need of learning spaces for commuting students. The university believes that the student’s environment must contribute to academic success. Students should view the residences as places where they can continue with their academic activities in a supportive and learning-conducive atmosphere (CTL 2011:2).

5.1.3 Third component: Faculty-based teaching and learning coordination points

Dedicated Teaching and Learning Coordination points (TLCs) are established within faculties for first year students. They open spaces for continuous conversation with regard to student success, and address issues such as lectures, student housing, student finance, etc. (REAP & UWC, 2009:6). TLCs meet once a term in each faculty and consist of a First-year Academy coordinator, a CTL advisor and other support services staff members (CTL, 2011:2).

The university’s systemic-holistic approach of the FYA programme includes the above-mentioned early assessment, faculty-based Teaching and Learning Centres, residential education as well as technological support, mentoring and tutoring system, a research-based approach to student success and a system that is integrated into institutional structures (CTL, 2011:2).

5.2 Framework for understanding and predicting student success at Unisa

The University of South Africa (Unisa) developed a socio-critical model and framework for their understanding, predicting and enhancement of student success (Subotzky &
Prinsloo, 2011:177-193). They conducted an extensive literature review, informing their model which applies the key constructs of situated agency, capital, habitus, attribution, locus of control and self-efficacy. Subotzky and Prinsloo (2011:183) state that predominant models in student success and retention do not recognise the concept “mutual responsibility” in the process. They emphasise that students should develop the required skills and attributes for successful higher learning and that institutions should continuously review, adapt and improve their practices in order to ensure success. “Mutual responsibility depends on mutual engagement” (Subotzky & Prinsloo, 2011:183) which depends on actionable mutual knowledge. They state that an effective tracking system should go beyond the conventional provision of quantitative data, but needs also the incorporation of qualitative sources and a broad range of organisational intelligence to predict and address risks. They regard students and the institution as “situated agents”. The agency concept in social theory refers to the extent to which the individual is free or determined by his/her collective socio-economic structures and conditions.

They use the concept “situatedness”, which implies that the student and institutional attributes are shaped by the structural conditions of their historical, geographical, socio-economic and cultural backgrounds and circumstances. A student and an institution are both situated agents with joint responsibilities for assimilation into the academic environment. This notion differs from the traditional models which place a strong focus on students’ responsibilities like Spady and Tinto. As mentioned earlier in this study, the University of South Africa’s model for explaining, predicting and enhancing student success uses the construct of student walk to refer to the continuous interactions between student and institution throughout every phase in the student’s journey (Subotzky & Prinsloo, 2011:185). The student’s journey starts with pre-registration and proceeds through all processes of mutual engagement, i.e. application, registration, teaching and learning, student support and graduation. This concurs with Tinto’s statement that is based on Van Gennep’s “rites of passage” theory and membership (Tinto, 1988:40). According to Unisa’s model and theory, an institution’s knowledge of the student is often limited to registration information and surveys and it is therefore imperative to implement events that will “achieve greater mutual understanding” (Subotzky & Prinsloo, 2011:185). Non-academic institutional support, such as administrative services and organisational cultural dynamics, has an impact on success.
The model further explains the importance of mutual responsibility for successful transformation of student and institutional attributes through the effective application of mutual knowledge (academic, non-academic and administrative processes). Transformation is the result of effective interaction. This notion of interaction concurs with the theories that are discussed in this study of Tinto (1988:438) and Spady (1970:78) as well as research conducted by Draper (2008:3), Kember (2001:328) and Travis (1990:4). As previously mentioned, the concept “knowledge of the institution” refers, according to the Unisa model (Subotzky & Prinsloo, 2011:185), to the student’s understanding and mastering of the requirements of higher learning at each phase of the student walk (informed choice of qualifications, courses understanding and meeting assessment expectations, mastering competencies, e.g. time management, study skills, determination, self-discipline, etc.). This also includes accessibility of lecturers, tutors, counsellors, administrators and library staff. They define the concept “knowledge of the student” as understanding and addressing the individual and collective needs of the students, understanding the students’ academic and non-academic profiles, backgrounds, readiness and risk factors. Mutual knowledge should be translated into effective action at each point in the student walk. Success is only achieved if there is a closer alignment between the student and institutional attributes and activities. Sufficient “fit” at each stage is a precondition for success at each step of the student walk.

The model of Unisa assumes that mutual engagement implies two concepts i.e. “capital” and “habitus”. The institution and student (“agents”) each possesses certain kinds of capital. This concurs with the theory and approach of Berger (2000) as well as Yorke and Longden (2004). Social capital “includes the social and personal connections or networks that people capitalize on for interpersonal assistance and personal gain” (Wells, 2008:29). Social capital is often developed in schools in addition to home. Cultural capital includes culture-based factors that help define a person’s class. One inherits as an example your cultural capital from your family. Accumulated social and cultural capital will have an impact on a student’s decision making. Someone with a high level of social and cultural capital are more likely to feel an entitlement to higher education (Wells, 2008:30) and may display persistence (Berger, 2000). Unisa’s model
explains how the “agents” (institution and students) acquire or fail to acquire various forms of capital “through the reproductive mechanisms embedded in their socio-economic and cultural contexts” (Subotzky & Prinsloo, 2011:186) and through their individual or institutional initiatives. An example of cultural and intellectual capital is academic literacy which is imperative for academic success. With regard to institutional capital, an institution’s capacity for organisational learning can be viewed as institutional capital. Institutional capital in this sense is an institution’s ability to utilise actionable intelligence to continuously improve practices and services and thereby enhancing success (Subotzky & Prinsloo, 2011:186).

Unisa views the mutual engagement and success of the agents as a result of the construct of what Bourdieu refers to as “habitus” (Braxton, 2000). Habitus is the “combination of perceptions, experiences, values, practices, discourses and assumptions that underlies the construction of worldviews” (Subotzky & Prinsloo, 2011:186). This is unconscious and embedded in our practices. Capital and habitus are useful in reflecting on the hidden assumptions in individual or institutional cultural behaviour. Transformative learning organisations are constituted when institutions effectively reflect on their practices in this way. The Unisa model wishes to challenge the obstructive elements of student and institutional habitus (Subotzky & Prinsloo, 2011:187).

This study has already discussed the concept “transformation” as a coherent response with systematic integration of interventions across the institution that ensures student success (REAP & UWC, 2009:1) and Subotzky and Prinsloo’s (2011:185) statement that success of transformation of students’ and institutional attributes takes place through mutual knowledge and effective interaction (a mutual responsibility). With regard to students, intra-personal and inter-personal transformation should occur. Intra-personal refers to individual psychological issues which include positive attitudes and beliefs, self-discipline, motivation and confidence. The inter-personal domain refers to the social interaction that is needed for self-development which includes social, psychological and sociological aspects of interaction. An example is communication and inter-personal
skills, cultural and diversity issues, power relations, critical reflection and self-knowledge that derive from interactions.

With regard to the institution, transformation should take place in the academic, administrative and non-academic social domains. Academic and administrative domains refer to the core business of an institution of higher learning, i.e. teaching and learning, research and community engagement. The social domain refers to the institutional culture, power relations, micro-politics, inter-group dynamics and dominant ideology (Subotzky & Prinsloo, 2011:187).

As already mentioned in this study, Unisa applies the key modalities of attribution, locus of control as well as self-efficacy to both students and the institution. This is based on the theory of Bean and Eaton (2002). Attribution is where causality is attributed and is usually based on perceptions rather than evidence. The potential risk is that only one or only a few of potential factors can be attributed as causes, for example, a student may attribute the lack of success to the apartheid-generated disadvantages but neglect to acknowledge other factors, i.e. inadequate determination, motivation and self-discipline. An institution can also attribute cause partially by blaming low pass rates on the poor schooling system without acknowledging institutional deficiencies. An institution should therefore identify all possible factors that might have an impact on success in order to avoid partial attribution. According to Unisa, their model ensures the identification of all possible factors for success. Another concept that the Unisa model includes, is locus of control. Locus of control refers to where agents locate control, i.e. internally or externally. Although there are factors that we have no direct control over, it does not imply that these factors are not actionable. Both institution and student can counteract factors such as disadvantage by means of sufficient and effective remedial support as well as individual initiative. Another factor is self-efficacy (self-confidence and self-regard) or the belief in one’s own capacity to succeed which is an important interpersonal attribute for success (Bean & Eaton, 2002). An institution should have confidence and trust in its own capacity to achieve its vision and mission. This can be achieved by means of its initiatives and effective organisational learning.
6. CONCEPTUAL MODELS

Subotzky and Prinsloo (2011:183) argue that the models for understanding and predicting student success are partially relevant for a developing country. They state that “predominant models do not adequately recognise the mutual responsibility” of institution and students. Mutual responsibility refers to students’ responsibility to acquire and develop the required attributes, skills and knowledge for a successful academic career, as well as institutions of higher learning that should review, adapt and improve their practices continuously, i.e. a transformative approach. The latter emphasises the importance of the institutionalisation of the VUT’s quality model for ongoing improvement based on the Plan-Do-Act-Improve framework (at VUT the Plan-Implement-Review-Improve/adjust model).

Spady (1970:64) states that “no one theoretical model can hope to account for most (let alone all) of the variance in drop-out rates”. There are numerous models and theoretical frameworks that explain student success such as Rootman’s (1972) “person-role fit” model that focuses on the learner’s personal characteristics and the degree to which the learner can balance his/her characteristics with the institution’s expectations, which reminds of Spady’s concept of normative congruence. The early models of Spady, Rootman, Tinto, etc. try to understand student-institutional fit by examining the student as well as the institution’s variables that might affect the compatibility of students and institutions (Andres & Carpenter, 1997:12). Some of the models that were developed since the 1970s focused on the psychological variables of students, others on the responsibility of institutions to provide sufficient support – the majority of models attempt to understand what factors affect post-secondary students’ decisions to drop out (Andres & Carpenter, 1997:6). Psychological models build on retention theories focusing on variables such as students’ beliefs, attitudes, intentions and behaviours and the relations among these variables. Student intent is a variable that became prominent in studies on student retention. Researchers such as Tinto integrate this variable in their work.
Models that explain student attrition better are longitudinal-process models that examine the interplay between student and the academic environment over time (Tinto, 1975:90; Harvey-Smith, 2010:2). These models are underpinned with the notion that increased social and academic integration would lead to increased goal and institutional commitment (Tinto, 1975). Tinto’s model is the most commonly referred to model in student retention/drop-out studies (Draper, 2003:2). The model of Tinto has a theoretical derivation by analogy of Durkheim’s model of suicide (Travis, 1990:225) and is strongly influenced by the sentiments of Spady’s work (1970). One of the aims of this study is to utilise the outcome to develop a conceptual framework for the Vaal University of Technology (VUT). The theoretical framework of Tinto, inspired by the studies of especially Durkheim and Spady will be discussed in more detail as underpinning theories and models that will inform the development of a suitable conceptual framework. Spady proposes a sociological model of the drop-out process (Spady, 1970:77). Spady measures successful academic integration by grade performance, and social integration by a student’s interaction with peers and faculty as well as student participation in extracurricular activities (Andres & Carpenter, 1997:14).

6.1 Spady’s sociological model

Spady’s basic starting point is that the drop-out process can be best explained by an interdisciplinary approach involving an interaction between the student and the student’s university environment. In this interaction the student has attributes such as dispositions, interests, attitudes and skills which are exposed to influences, expectations and demands from a variety of sources including courses, faculty members, administrators and peers. It is by means of this interaction that students are provided with the opportunity to be successfully assimilated into the academic and social system of a university. According to Spady, the concept “success” within the social system (such as a university) can be defined by having attitudes, interests and individual dispositions that are compatible with the attributes and influences of the environment (Spady, 1970:77). Spady refers to this condition as “normative congruence”. This aligns with Tinto’s findings and claims that retention is based on congruence between the activity of the university and the beliefs of the individual, aligning with research findings
that organisational factors, peer culture and staff motivation mediate academic outcomes (Baird, 1993). Spady (1970:68-77) refers in his work to the following different variables, i.e. background variables, sex-linked role of educational goals and interests, personality dispositions and interpersonal relationships:

6.1.1 Background variables

The socio-economic and academic background of a student is known to have an impact on the student’s chances to be academically successful (Spady, 1970:68). Family background has the greatest influence on an individual’s decision to become a university student. Students with a rural or small-town background are likely to drop out (Spady, 1970:70). A more important factor that has an impact on student drop-out is the quality of relationships within their family as well as the values of the family. Students that came from a family background with more casual and open relationships with their parents are likely to be more academically successful in comparison with parents that were more demanding or overprotective. Prebble et al. (2005:10) emphasise that students are more likely to consult first with their family members and friends rather than with counsellors when they are considering withdrawal from their studies. Students from households that are characterised by tension and disturbance are more likely to drop out. As already mentioned in this study, students that attended poor quality schooling, which includes poor quality instruction, facilities, curriculum, standards and lack of exposure of fundamental skills are inadequately prepared for higher learning (Spady, 1970:70).

6.1.2 Sex-linked role of educational goals and interests

Spady refers in his work to research conducted that emphasises the role of family socio-economic status, student intelligence and educational plans simultaneously measured during the second year of high school as indicators of a potential student’s academic success. It is less likely that students that have plans (clear and realistic) to study at institutions of higher learning will drop out. They are usually accurate in predicting their
own persistence and attrition. Higher drop-out rates are amongst students that have clear vocational goals, but poor academic records. Spady’s study was conducted in the 1970s. He refers in this context, “for women...the decision to pursue a career is less often dictated by social or economic necessity. As a result, women are both freer to deal with college as an intrinsically rewarding experience and face less pressure to finish” (Spady, 1970: 72). He argues therefore that we might expect a higher proportion of men to finish their degrees and a higher proportion of women to drop out.

6.1.3 Personality dispositions

Motivation is regarded as a critical variable in the drop-out process. Spady refers to studies that found that drop-outs expressed a lower need for achievement (Spady, 1970:73). Poor study habits and factors such as inability to manage things on their own are more likely to be found amongst drop-outs. Spady refers to research conducted with drop-out students from a psychoanalytic point of view; these studies showed that drop-out students reacted without emotion to Rorschach pictures. They lack deep emotional commitments and are more impulsive, overly active and restless, which might be linked to a lack of self-esteem and self-confidence. Students that are not living in university residences are more likely to drop out due to the fact that they have “fewer interpersonal ties within the university milieu, they feel like outsiders and have difficulty clarifying their self-concepts” (Spady, 1970:74). Spady emphasises the research findings that persisters are more responsible and mature in comparison with drop-out students. Drop-out students “either lack insight and capabilities for self-analytical, critical thinking, or reject these processes as important parts of their personalities” (Spady, 1970:75). Spady refers in his work to the following attributes and behaviours of students with higher levels of performance, They are clustered in six dimensions by Lavin:

- Social maturity in the student role (greater social presence, responsibility and restraint in social behaviour)
- Emotional stability (higher morale, stability and freedom from neurotic orientations towards work)
• Achievement motivation syndrome (higher motivation, activity level and endurance)
• Cognitive style (greater curiosity, flexibility, originality and a liking for thinking)
• Achievement via conformance (greater need for order, femininity and conformance)
• Achievement via independence (lower need for affiliation and peer conformity, greater independence and lack of constrictedness).

Spady emphasises the importance not to deal with these attributes in isolation from a student’s social environment. Therefore, the interpersonal relationships play an important role in a drop-out explanatory model.

6.1.4 Interpersonal relationships

Various measures of interpersonal orientations, support of friends and extracurricular involvement enhance academic success. The absence of “profound” relationships is associated with attrition; this concept of profound relationships implies significant meaning or closeness to the student (Spady 1970:76). Drop-out students have, according to Spady, fewer friendships and are less likely to participate in campus activities in comparison with persisters. Participation is therefore a major link to the university’s social system. Interpersonal relationships facilitate greater integration of the student into the university social system. Non-participants in extracurricular activities lack the social support of contact with other students. Interpersonal relationships facilitate greater integration of the student into the university’s social system. Spady also states that peer group norms either emphasise or denigrate academic behaviour (Spady, 1970:77).

In his attempt to develop a sociological model of the drop-out process, Spady states, “since no one theoretical model or research design could possibly systematise or operationalise the specific relationships among all of the variables mentioned so far…
we do not attempt the absurd” (Spady, 1970:77). Spady’s assumption is that the drop-out process is the best explained by an interdisciplinary approach involving an interaction between the student and his/her university environment. A student’s attributes (dispositions, interests, attitudes and skills) are exposed to influences, expectations and demands from a variety of sources including courses, faculty members, administrators and peers. It is this interaction that provides the student with an opportunity to assimilate successfully into the academic as well as social system of the university (Spady, 1970:77). If the rewards in either system are insufficient, the student may decide to withdraw. The most obvious rewards within the academic system are grades. As mentioned previously, success within the social system is defined by having attitudes, interests and personality dispositions that are compatible with the attributes and influences of the environment, a condition which Spady refers to as normative congruence (See figure 2).

Close relationships with members in the system is a condition that Spady calls “friendship support” which compares with Durkheim’s concept of “social integration”. Durkheim is of the opinion that if someone is breaking his or her ties with a social system it is a result of a lack of integration into the common life of that society. The possibility of suicide increases (according to Durkheim’s theory) when two kinds of integration are absent, i.e. there is insufficient moral consciousness which compares with Spady’s concept of a low normative congruence and an insufficient collective affiliation which Spady refers to as friendship support. Spady is convinced that the social conditions that affect someone that commits suicide is relevant to a student dropping out (Spady, 1970:78). If there is a lack of consistent, intimate interaction with others, if a student is holding values and orientations that are dissimilar from those of the general social collectivity and lacking a sense of compatibility with the social system, it is more likely that he or she will eventually drop out.

According to Spady, one’s satisfaction with the university experience will depend on the available social and academic rewards, and sustaining one’s commitment to the university requires integration in the system and a sufficient number of positive rewards. Spady places emphasis in his model on family background, the elements of normative
congruence (student goals, orientations, interests, personality dispositions and academic potential (See figure 2)). In Spady’s model, a broken arrow leads from institutional commitment back to normative congruence. This shows that the result of the entire process may lead to certain changes in the individual with regard to his/her attitude, interests, goals and/or motivation. These changes in personal attributes alter the conditions that are included under “normative congruence”.
6.2  Tinto’s theory and model of drop-out

Tinto’s model should be regarded as an expansion of Spady’s model (Andres & Carpenter, 1997:14). Braxton and Hirschy (2005:61) state that “Tinto’s interactionalist theory of student departure enjoys paradigmatic statute”. Tinto states that if an institution develops a theoretical model for drop-out from university, it is imperative to explain the longitudinal process of interactions that lead students to forms of persistence or to drop out (Tinto, 1988:438). Tinto includes in his model Spady’s notion of “normative congruence” (Spady, 1970:78). Tinto argues that whether a student persists or drops out is quite strongly predicted by the student’s degree of academic integration and social integration (Draper, 2008:3). This concurs with the early statements of Spady (1970:77).

Kember (2001:328) investigated the notion of integration as proposed by Tinto (and Spady) by asking questions such as:

- How would you describe your relationship with the teaching staff?
- How would you describe your relationship with your classmates?
- Have you participated in any activities of the university?
- Do you feel you belong at the university?
- What can the university do to improve your sense of belonging?

According to Kember, an institution of higher learning can intervene by encouraging class discussion to encourage teaching staff to interact with students, to focus on the initial contact between student and institution, to motivate students to enrol in department and institutional activities and to allow greater accessibility of resources.
6.2.1 The notion of “integration”: Durkheim’s theory of suicide and Tinto’s theory of drop-out

Tinto’s application of Durkheim’s theory informs his descriptive model that specifies the conditions under which drop-out occurs (Tinto, 1975:92). Durkheim argues that if people are insufficiently integrated into the fabric of society, they are more likely to commit suicide (Durkheim, 1961; Andres & Carpenter, 1997:12). We can therefore assume that the lack of integration with regard to the social system of the university will result in a low commitment to that social system and will have an impact on the decision of the student to leave the institution. Tinto (1975:91) views an institution of higher learning as a social system with its own value and social structures. He draws on Durkheim’s theory that if there is a lack of two “types” of integration, i.e. insufficient moral integration (value – altruistic and anomic suicide occurs then), and insufficient collective affiliation (egoistic suicide occurs then), suicide in society increases. Insufficient moral integration is the result of an individual’s own values that are “highly divergent” from those of the social collectivity; the insufficient integration of collective integration is a result of insufficient personal interaction with other members of the collectivity (Tinto, 1975:91).

According to Tinto, a student can be integrated into a university’s social sphere but drop out due to malintegration into the academic domain (e.g. poor academic performance). A student may excel in the academic domain and still drop out because of a lack of integration into the institution’s social life. There are two domains of the university, the academic and social domains. A student may achieve integration in one area but lack integration in the other. Academic integration refers to grade/ mark performance, personal development, academic self-esteem, enjoying subject, identification with academic norms and values and identification with one’s role as a student. Social integration refers to how many friends a student has, personal contact with academics (including personal interaction between student and academic staff) and the degree in which the student enjoys being a university student (Travis, 1990:4).
The argument of Tinto is that we can regard the institution of higher learning as a social system with its own value and social structures and therefore, act towards drop-out in a manner analogous to suicide in society. Tinto states “one can reasonably expect, then, that social conditions affecting drop-out from the social system of the college would resemble those resulting in suicide in the wider society; namely, insufficient interactions with others in the college and insufficient congruency with the prevailing value patterns of the college collectively” (Tinto, 1975:91).

6.2.2 The notion of “Institutional departure”

Tinto describes the process of institutional departure over the student’s entire university journey (Tinto, 1988: 439). The “forces” that have an impact on the departure of the first year students (especially during the first semester) are different from the forces that are responsible for the departure of students after the first year of studies. The first six weeks of a semester are regarded as the important period in student persistence and drop-out.

Tinto draws upon research on the rites of passage in tribal societies which provides a conceptual framework that can be utilised in analysing the “early stages of the process of student departure” (Tinto, 1988: 439). He refers to the longitudinal process of student persistence and the process of student departure which has specific stages through which first year students must pass on their journey of their university careers. The process of student departure has a longitudinal character. According to Tinto, there are varying difficulties that students face over time in attempting to persist in their studies. Tinto draws in his arguments on Arnold van Gennep’s study of the rites of membership in tribal societies. Van Gennep studied the individual and group’s life crises. He views life as being a series of passages that leads an individual from birth to marriage and finally death. His interest was on ceremonies and rituals as well as mechanisms that a society employs in order to provide for an orderly transmission of its social relationship over time (Tinto, 1988:440).
Tinto views the process of student departure on par with Van Gennep’s argument of the movement of individuals from membership in one group to membership in another. Van Gennep views the so-called “rites of passage” as distinct phases or stages, i.e. separation, transition and incorporation. Each stage moves the individual by means of ceremony and ritual from youthful participation to full membership in adult society (Tinto, 1988:440).
6.2.2.1 The stages in the “rites of passage” and the stages of passage in the student journey

Van Gennep views the first stage in the “rites of passage” as separation. The individual is separated from past associations. This separation is characterised by a decline in interactions with members of the group from which the person has come. The second phase or stage is transition. During this phase, the individual begins to interact in new ways with the members of the new group into which membership is sought (Tinto, 1988:441). It is during this transition phase that isolation occurs. Mechanisms should be in place in order to support students in the “separation” phase when they depart from their past associations and adopt the behaviours and norms that are appropriate to the new institutional membership. During the transitional stage the individual is learning the knowledge and skills that are required in order to perform his specific role in the new group. The final phase is incorporation. A characteristic of this phase is that the individual is taking on new patterns of interaction with members of the new group and the establishment of membership in the group as a participant member. The members that went through the movement from the past are fully integrated into the new group’s culture.

Tinto utilises the work of Van Gennep as a framework for viewing the longitudinal process of student persistence. Students are moving from one community or set of communities (i.e. high school and family) to another community. The students should separate themselves from past associations in order to make the transition to be incorporated in the life of the university. It is in these attempts of students to make transitions in institutions that students encounter difficulties. Van Gennep’s view of the problem to become a new member of a community is conceptually the same as that of an individual that becomes a student in a university. Students must pass the stages or passages of separation, transition and incorporation in order to complete their studies.
The first stage of separation that students experience, requires them to disassociate themselves from membership in their past communities, e.g. the high school and their place of residence (Tinto, 1988:443). Separation might be difficult for an individual depending on the character of the individual’s community. According to Tinto, separation is a parting of the individual from his/her past habits and patterns of affiliation. For a student to adopt the norms and behaviours that are acceptable for the university requires transformation and rejection of those of the past communities. This is a stressful process for the individual which may lead to a situation where a student is constrained to persist in university. In the case of residential students, they need to disassociate themselves physically as well as socially from their communities of the past, i.e. they should become “leavers” from their former communities. According to Tinto, this may not apply to those individuals that are staying at home while attending a university as they are not required to disassociate themselves from their communities in order to establish memberships in their new environments. Such students may find their movement into the new dimension of university life less stressful, but also less rewarding and measurably more difficult in the long run due to the fact that they are not able to take full advantage of integration into the social and intellectual life of a university. The students that are staying at home may be exposed to external forces that pull them away from incorporation into the communities of the university. Kuh and Love (2001) state that for students to integrate, they do not have to conform to the dominant university culture. They can still adapt and have a sense of belonging to the institution if they join a “cultural enclave”. The latter are subgroups within the institution where the students of that group share the same norms, values and beliefs of that minority.

There are, according to Tinto, also other factors that impact on students’ academic success or decision to withdraw (voluntary or involuntary) such as students that have weak intentions or goals. He states also that institutions should not only rely on a student’s high school achievements as a predictor for successful integration into the academic and social systems of higher education. Students from lower socio-economic status are more likely to be less prepared for university and have a higher risk to drop out.
6.2.3 Economic theory

According to Tinto (1986), the crux of an economic perspective on student departure is the student’s weighing of the costs and benefits of attending a university. Student departure occurs when a student perceives that the costs of attending a university exceed the benefits of attendance. From an economic perspective, a student’s departure links to the cost of attending a university and the ability of the individual to pay the cost of education.

6.2.4 Organisational theory

The structure and organisational behaviour of the institution constitute the organisational perspective on student departure. Bean developed a theoretical model on variables that influence satisfaction based on the model of employee turnover in work organisations (Braxton & Hirsch, 2005:62). The variables that influence satisfaction in the theoretical model of Bean, influence in turn a student's intent to leave. This intent to leave impact on a student’s decision to persist. According to Price and Mueller’s model (1981) the variables on satisfaction include routinisation, participation, instrumental communication, integration and distributive justice. Bean adopted these variables and added grades, practical value, development, courses and membership in campus organisations as relevant valuables that have a positive effect on satisfaction, except for routinisation. Bean identifies an additional variable, “opportunity”, as determinant for a student to leave an institution (i.e. an opportunity to transfer to another institution of higher learning) (Braxton & Hirsch, 2005:63).

6.2.5 Psychological models

Tinto argues that psychological processes in students’ departure reflect a psychological orientation to understand student departure (Braxton & Hirsch, 2005:63). Psychological
characteristics regarding student departure can be distinguished between persistent students and those that depart at the individual student level and the institutional environment level. The latter may be at institutional level as an organisation or at sub-organisational level. Carpenter (1997:5) states that “over the past 25 years, theoretical models of post-secondary student retention have examined student-institution “fit” by looking at students’ variables, institutional variables, and specific themes such as the integration of students into higher education institutions”. During the early 1970s models were developed on the psychological variables of students. According to Attinasi a student acts on perceived meanings by analysing interactions with the everyday world. In his model, he refers to two sociological approaches i.e. symbolic interactionism and ethnomethodology. The theory that meanings result from the interaction of the individual with others (socially constructed meanings) is called symbolic interactionism (Andres & Carpenter, 1997:8). The concept ethnomethodology refers to the way in which individuals describe, perceive and explain the world in which they live. According to Attinasi, student persistence and attrition is a result of the perceptions and analysis of the student of his/her everyday world, and also the acceptance or rejection of the idea that tertiary education is significant to his/her student life. Psychological characteristics that may impact on student departure are academic aptitude and skills, motivational states, personality traits and student development theories (Braxton & Hirsch, 2005:63).

Bean and Eaton (2002) develop their model on student departure based on four psychological theories, i.e. positive self-efficacy, declining stress, increasing efficacy and internal locus of control. The psychological processes lead to academic and social integration, institutional fit and loyalty, intent to persist and persistence (Braxton & Hirsch, 2005:63). Astin developed a theory of involvement which refers to a student’s amount of energy devoted to the academic experience. Involvement can be generalised (e.g. experience) or specific (preparation for a test).
6.2.6 Sociological models

University departure is influenced according to the sociological perspective by university peers, the student’s family’s socio-economic status, mechanisms of anticipatory socialisation and the support of significant others (Braxton & Hirsch, 2005:64). Berger (2000) refers to “cultural capital” that has an influence on student departure. Cultural capital refers to the resources that an individual can use in order to advance one’s social status (Braxton & Hirsch, 2005:64). Cultural capital in this context refers to skills such as informal interpersonal skills, manners, linguistics and educational credentials. Educational institutions also possess cultural capital (e.g. selectivity in admissions processes and perceived success of graduates). As previously mentioned, students with high levels of cultural capital are more likely to persist in comparison to students with less access to cultural capital (Braxton & Hirsch, 2005:65). Students with high levels of cultural capital are more likely to persist at institutions with correspondingly high levels of organisational cultural capital, while students with access to lower levels of capital are most likely to persist at institutions with lower levels of organisational capital.

6.3 Readiness theory

The readiness theory focuses on the student’s level of preparation to enrol and to succeed without remediation at a university (Conley, 2007:1). In higher education, readiness is associated with a student’s high school achievement as well as the outcome of admission tests. Other factors that are associated with readiness are a student’s skills with regard to time management, his/her motivational as well as background factors and self-concept, goal focus, academic skills, which include reading, writing, mathematics, technology, communication and study skills (Byrd & MacDonald, 2005). Byrd and Macdonald refer to the latter as category one skills and abilities. Category two includes the following factors: family factors (family expectations about higher education that influence decision or readiness), career influences (career motivations that influence decision making to attend a university), financial concerns and high school preparation. The third category includes a student’s self-concept (identity as a student) and institutional system (understanding of the standards and culture of the
Conley elaborated on the three categories of Byrd and Macdonald and suggests cognitive strategies, acquiring content knowledge, academic behaviours and contextual knowledge and skills. Cognitive strategies that develop over time are conceptual and evaluative thinking, synthesising and problem solving. They are all necessary to attain academic success in higher education. High school students’ cognitive strategies are usually assessed by means of ability tests as a selection tool for higher education.

Conley emphasises the importance of content knowledge, i.e. knowledge of skills that form part of the high school subjects (e.g. mathematics, languages and sciences). Students that are ready for higher education should for instance have skills to engage texts critically and they should be able to create well written work products in oral and written formats (Conley, 2007:10). Content knowledge should therefore be measured by the end of high school careers and the tests should be aligned with the standards that are expected of higher education.

Conley refers to the third element of readiness as academic behaviours which consist of meta-cognitive skills and study skills. Meta-cognitive skills refer to self-awareness, self-monitoring and self-control. Study skill behaviours are for instance time management, planning and breaking tasks up into "manageable chunks". According to Conley (2007:17) academic behaviours can be assessed by means of surveys and questionnaires (students list their methods, tools and strategies with regard to study skills, time management and self-management).

The last skill and knowledge is the student’s ability to understand and to adapt to the context of the institution. Conley (2007:13) states that the student should be able to understand the post-secondary education system and have knowledge of the norms, values and interactions as well as the human relations skills in order to adapt to the higher education system. If students are unable to understand or are unable to adapt to the institutional norms, values and expectations of an institution they will feel alienated and may withdraw voluntarily. Contextual skills consist also of social and interpersonal...
skills to work in groups with students from different cultural backgrounds. Contextual knowledge includes understanding of institutional processes such as admissions, financial aid, etc.

6.4 Transition theory

According to Bean and Eaton (2000:51), the first semester should be regarded as the period of transition. The transition theory links with the discussion on Tinto’s theory and model in this study and Van Gennep’s theory of “Rites of Passage”. The concept, transition, can be defined as an event that results in changed relationships, assumptions, routines and roles (Schlossberg, Waters & Goodman, 1995:27). Three types of transitions are identified by Schlossberg et al., namely anticipated, unanticipated and non-event transitions. If a student decides to enrol at a university it refers to anticipated transition. Unanticipated transition (non-event transition) can refer to a student’s inability to pay his/her fees, i.e. a loss of anticipated transition. The impact on an individual’s relationships, routines and motivation should form important elements in the evaluation of transition (Schlossberg et al., 1995:31). This concurs with what has already been discussed in this study with regard to Von Gennep’s three stages of passage in order to become a full member of the new group, i.e. separation, transition and incorporation. The transition phase is a shift from the known to the new by conforming to the university’s norms and values.

7. SYSTEMS APPROACH

According to the REAP report the interventions of an institution with regard to drop-out or retention initiatives should be theoretically based on the systems theory. A university should also be viewed as a “complex system” (Anyamele, 2005:357; Fourie, 2000:52; Holtzhausen, 2000:118) comprising various structures and interdependent subsystems. Exponents of the systems theory are Ludwig von Bertalanffy, Talcott Parsons and Norbert Wiener. As a biologist, Von Bertalanffy (1968:10) argues that living organisms should be studied as a whole. This point of departure is contradictory to the traditional scientific notion of breaking entities into separate parts in order to understand how the
parts are functioning. Since the 1930s all studies of living systems, i.e. organisms, parts of organisms, and communities of organisms emphasise a “new way of thinking” in science in terms of connectedness, relationships and context.

The view of interrelated elements that function as a whole is also applicable to universities as organisations. According to Holtzhausen (2000:118), the general systems theory offers a way of focusing on the effects of the “interrelationships of complex phenomena (as parts of the system) on the system as a whole”. The nucleus of the systems theory is “the whole is more than the sum of its parts”. According to Capra (1997:37), systems thinking is “contextual thinking”. Things should be explained in terms of their context, which means explaining them in terms of their environment. Capra argues that systems thinking can therefore also be viewed as “environment thinking”. This type of thinking is a shift in thinking from objects to relationships. This concurs with the fundamental principle of quantum physics, i.e. that there are no parts at all; a part is nothing else but a “pattern in an inseparable web of relationships” (Capra, 1997:37).

Capra’s arguments concur with that of Talcott Parsons, a sociologist. Parsons developed a theory of sociology as a system (Higgs & Smith, 2006). According to Parsons, all human beings and human activity form part of a social system in which people constantly communicate with each other. Central to the systems approach is the notion of interaction of subunits or subsystems within a system and interaction of the system with its environment. Modern systems theory has a common perception of what constitutes the essentials of a system, i.e. the notion that all systems are sharing common or generic concepts. Systems theory declares that all systems are governed by the same logic laws (Higgs & Smith, 2006:28). Modern systems theory therefore has a quest for understanding the fundamental principles and operating logic of all systems. The systems theory, in contradiction to atomism, is a conceptual framework and “philosophy that claims that life is a system of which we are part” (Higgs and Smith, 2006:26). This new way of thinking was underpinned by the discoveries in quantum physics with reference to atoms and subatomic particles. Atomism argues that components of a system cannot be studied or analysed in isolation (Blackburn, 2005:27;
Mautner, 2000:49; Capra, 1997:36). Systems theory is regarded as a powerful analytical and conceptual tool that a researcher can use in the field of complex physical and non-physical phenomena (Parsons, 1991:125).

Higgs and Smith (2006:28, 29) state that central to the systems approach is the notion of interaction of subunits or subsystems within a system and interaction of the system with its environment. "Synergy" is a typical commonly used concept in the systems theory. Synergy refers to the notion that the whole is greater than the sum of its parts. According to Smit and Cronjé (1999:64), "the individual subsystems are simultaneously applied in such a way that the result of their simultaneous application is greater than the sum of their individual efforts". Therefore, the various functions of an organisation become more effective and productive as in the case where they function individually. All functions should therefore strive for synergy by means of complementing each other as interdependent components of a system.

The university can therefore be viewed as an organisation composed of numerous functions that are often unfortunately viewed by managers as disconnected, as separate or detached units. The latter is a contradiction of the fundamental principle of the systems theory. If units are working detached from other units or sub-units within an organisation, it is usually a breeding ground for silo management. Research confirms that only 60% of the United Kingdom’s managers succeed in encouraging their staff members to collaborate with staff of other departments for reaching the goals of the business as a whole (Maitland, 2006:77).

Institutions of higher learning are composed of many functions which should not be viewed as individual separate units, but as contributing parts to the effective functioning of the whole. Each part of an organisation, every individual and each activity should focus on the achievement of the institution’s goals. This is why it is imperative that a university’s management should focus on the links between institutional functions (Evans & Lindsay, 2002:48).
8. EMPIRICAL STUDY: METHODOLOGY AND RESULTS

As already mentioned in the introduction, the study team was established by the DVC: Academic and Research of the Vaal University of Technology in 2011, and comprised two student support counsellors, a data analyst of the institution and a member of the quality promotion unit as study coordinator. The team decided to focus on the 2010 cohort students, because of the availability of statistical data, as well as the availability of qualitative management information of the 2010 cohort students. The team decided to utilise quantitative, as well as qualitative information in order to triangulate findings and to identify the possible major factors for student drop-out at the Vaal University of Technology.

The research questions for this study were:

- What are the students and academic staff members’ perceptions on a hypothetical statement that absenteeism is a primary factor for a relatively high dropout rate at the VUT?
- What are the primary factors for a high dropout rate at the VUT?
- What are the possible remedial actions that the institution can consider in order to enhance the relatively high dropout rate at the VUT?
The following is an overview of the quantitative study, followed by a reflection on the qualitative study:

8.1 Quantitative study: A profile of first year student attrition at the VUT

8.1.1 Aim of the study

The aim of the quantitative study was to obtain insight into the phenomenon of “drop-out” or attrition at VUT. Therefore, the variables, which underlie this phenomenon, were investigated in order to inform managerial decisions to alleviate the problem.

8.1.2 Research sample

The research sample comprised the 2010 first-year students, who had dropped out during the course of the year from all the VUT campuses. A total number of 894 students were identified.

8.1.3 Research method

Profiles were compiled of the 2010 first-year students who had dropped out, in terms of the following variables: age, gender, race, citizenship, NSFAS recipient, student residence, faculty, campus and performance average [i.e. the average of the final mark the student obtained in the 6th or the 11th exam month]. Subsequently, the variables were divided into pre-registration variables [i.e. citizenship, race, gender and age] and post-registration variables [i.e. student residence, NSFAS recipient, campus, performance average and faculty]. Graphs were compiled accordingly and will be presented under the heading of “Results”.

8.1.4 Data collection and processing

The data were supplied by the information analyst of the Institutional Planning Unit of VUT. The data processing was undertaken by the statistical consultants of the North-West University. Descriptive statistics were employed for data analysis.

8.1.5 Results

The results of the profiling are given below in Tables 2 and 3.
From an inspection of Table 1 [the pre-registration variables], the following findings can be drawn:

**FINDING 1**

93% of the first-year students, who dropped out, are of South African citizenship, while 7% are international students.

**FINDING 2**

The majority [i.e. 90%] of the students are from the Black student population.

**FINDING 3**

61% of the first-year students, who left prematurely, are males. By comparison, 39% of the female population dropped out.

**FINDING 4**

The age group in which the most drop-outs occurred, were from the 20 – 29 years age group, namely 52%.

From Table 2 [the post-registration variables], the following findings can be drawn:

**FINDING 5**

First-year students, who did not stay in official VUT student residences, had by far the highest drop-out percentage, namely 95%. By comparison, only 5% of the students who stayed in official VUT student residences dropped out.

**FINDING 6**

84% of the first-year student population in 2010, who were not NSFAS recipients, left prematurely, while only 16% of the students who were NSFAS recipients dropped out.
FINDING 7

The main campus had the highest drop-out percentage in 2010, namely 57%, while the satellite campuses totaled 43%.

FINDING 8

First-year students who obtained a performance average of 50% and above, showed a higher drop-out percentage [i.e. 54%], than the students who performed below 50 percent [i.e. 46%] of the student population under investigation.

FINDING 9

The faculty with the highest drop-out percentage, is the Faculty of Engineering [37%], followed by the Faculty of Management Sciences [29%], the Faculty of Human Sciences [20%] and lastly, the Faculty of Applied & Computer Sciences [13%].

8.1.6 Recommendations

Although the pre-registration variables are not controllable, one can deduce from these variables that the first-year students most likely to drop out of VUT are the South African black male students.

By contrast, the post-registration variables are easier to control in that effective remedies and practices can be put in place in order to alleviate the problem of attrition.

Firstly, the most urgent matter that needs to be addressed is the high drop-out rate, namely 95%, of first-year students who make use of private accommodation during their stay at VUT. These students are the most vulnerable to premature departure as opposed to those who stay in official VUT residences.

This problem can be addressed by:

- drawing on a body of research focusing on student attrition. For example, Tinto’s model of student departure focuses on the students’ experiences at the higher education institution where they are registered. In essence, it means that the lack of intellectual and social integration into the academic and social communities of
the institution leads to premature departure. On the other hand, if the students experience a positive integration into the institution, the likelihood of persistence is enhanced. Similarly, Dietsche states that the student's decision to depart is a function of the interaction between the student characteristics and the [formal and informal] learning environment. In order to address this problem, the University of Stellenbosch, as an example, has put in place strategies [based on the theories of Tinto and Kuh, etc] to provide a supportive learning environment to especially their first-year students. This approach also provides opportunities for non-resident students to be integrated into learning communities with residence students in order to bring about an enriching educational experience in and out of class.

- giving priority to the anticipated building of more VUT student residences

Secondly, the financial support implications are a contributory factor to premature departure. First-year students who are not NSFAS recipients are more prone to dropping out compared to students who are NSFAS recipients.

Thirdly and contrary to expectation, it is not necessarily the student who performs poorly who will drop out. As is evident from Table 2, it is the student whose performance average is actually at 50% and above who is more likely to leave prematurely – possibly because of the accommodation and financial reasons stated above.

8.2 Qualitative study: Interviews with drop-out students of 2010

The strength of a qualitative approach in research is that it provides a complex description of how people experience a given research issue. Dr HJ Brits and Me Corneli vd Walt conducted focus group as well as telephone interviews with a selected group of drop-out students of 2010. Purposive sampling is utilised i.e. a group of participants according to preselected criteria relevant to this study took part in the data collection process. Purposive sample sizes are determined on the basis of a theoretical saturation point (the stage in the data collection phase when no new additional information to the research questions is collected). Two focus group interviews as well
as 20 telephone type interviews were held with drop-out students of 2010. The interviewees were randomly selected from a list of drop-out students that was provided by the information analyst of the Institutional Planning Unit, Mr Yegash Naidu. Ten interviewees per focus group session were selected and invited to take part in the exercise. The total number of interviewees that took part in the exercise was 34. A third focus group interview was cancelled due to a technical saturation point that was reached.

The informal mode in which the focus groups were conducted created an opportunity for the participants to take part in a less-controlled environment, which is conducive to wide-ranging discussions. The refreshments provided were perceived as contributing to the success of the focus group. The DVC: Academic and Research provided honoraria per focus group interviewee of R200 as an incentive and compensation. The informal atmosphere eased the initial tension and made participants more open for discussions. A structured questionnaire with open-ended questions was used during both focus groups and telephone interviews.

The primary objectives for collecting information from the 2010 drop-out students were

- to collect information on the students' perceptions on their journey as customers;
- to understand why some of the first-year students of 2010 withdraw and to link that to the myriad of factors in the literature study;
- to utilise the information in developing a hypothetical framework that explains the VUT students' process of departure or persistence journey; and
- to inform the development of proposals for possible interventions that the institution can consider.

This study was also utilised to collect information on student absenteeism as a possible factor for student success at VUT. A literature study was conducted followed by the collection of information from both staff and students on their views with regard to this variable. The above-mentioned interviews were utilised to collect information from the
students. With regard to the academic staff, a questionnaire and informal interviews were utilised to collect information on the perceptions of academic staff on absenteeism as a possible factor for student success at the VUT. The same questionnaire was utilised to examine the academic staff’s perceptions on the effectiveness and implementation of the institution’s early warning system (see Appendix C).

The researchers investigated the effectiveness and implementation of the early warning system as a pilot study that will inform a remedial action plan. Such a plan might contribute to the refinement and institutionalisation of the system as a mechanism for academic staff to detect students at risk, to introduce the necessary interventions and to monitor student performance. The rationale for collecting information on student absenteeism has the same purpose, i.e. the collection of information which may inform future studies on absenteeism at the VUT as a factor for early student departure. One of the focus areas of this study was absenteeism as a possible predictor for student success at the VUT. A questionnaire was developed for this purpose in order to collect the perceptions of the academic staff at the Vanderbijlpark campus on this issue. The questionnaire also made provision for questions on the effective implementation of the early warning system. The information collected informed the development of relevant findings and recommendations with regard to absenteeism and the institution’s early warning and student tracking system. Information on absenteeism was also collected from students during the focus group interviews and telephone interviews.

8.2.1 Interpretation of findings

The qualitative information gathered during the interviews is interpreted within the framework of the literature study. The findings are triangulated with the quantitative data gathered during satisfaction surveys that were conducted in 2010 (see Appendix A: Staff and Student Satisfaction Survey Report 2010 and Appendix B: Satisfaction Survey with students of the Secunda campus). The findings of the satisfaction surveys are relevant to this study for the following reasons:
• The study reflects on the satisfaction level of staff and students (senior students) of 2010.
• The data enrich the findings of the qualitative study by means of quantitative data.
• The findings of the surveys contribute to the validity of the findings by means of triangulation.
• The survey questions are relevant to the aim of this study as it reflects on the notion of each phase of the “student journey”.

Qualitative information was “clustered” under headings that relate to concepts from the literature study. The following method was used to present the findings of the qualitative approach to this study:

• A heading and a short discussion of the relevant concept or concepts from the literature study
• Relevant to the above-mentioned heading and concepts, the verbatim responses of the interviewees
• The finding

8.2.1.1 Student – lecturer interaction

This study discusses the notion of interaction as a mutual responsibility between staff and students with reference to views of exponents such as Spady (1970), Tinto (1988), Draper (2008), Kember (2001), Travis (1990), etc. Continuous interaction is viewed as an important aspect in the notion of “student walk” throughout every step of the students’ journey. This study emphasises the importance of effective interaction and good relationships between student and campus environment (also staff) as a non-cognitive factor for student satisfaction and success. It is through interaction that students are provided with the opportunity to be successfully assimilated into the academic and social system. According to the information collected during the interviews, some of the
participants are of the opinion that certain staff members were “more accessible” to them during as well as after class hours. These include lecturers that were very supportive.

There are also participants that are of the opinion that the communication between students and lecturers was not always effective. Some of the examples of poor communication are when students are not informed about the changing of venues, that more senior lecturers are not accessible due to their administrative and managerial tasks after hours and part-time lecturers are usually not accessible after hours. An example was given by one participant of a lecturer that was not willing to explain concepts or answer questions of students in class because he/she regards that as issues that should be dealt with during the tutor classes. Some of the responses of participants:

INTERVIEWEE RESPONSES:

NEGATIVE STUDENT-LECTURER INTERACTION

- “I think lecturers should come to class with a positive attitude, to interact with us and to respect us as students. My high school teachers know each of us by the name, but here (the VUT) we received a message that everyone minds his own business.”
- “I never found a lecturer that says, ‘what do you think we can do,’ during or after class or whenever…”
- “The staff in the laboratory is not helpful at all.”
- “The lecturers should take time (to interact with students) and make sure that we understand… but he (the lecturer) was so rude to us.”
- “The practical lab lecturer was not helpful at all and most of us failed as a result of that.”
- “He (the lecturer) will not discuss issues…read to us.”
POSTIVE STUDENT-LECTURER INTERACTION

- “My lecturer was so helpful and supportive, giving us class a lot of work to do and by exam times - telling us that if we work through the assignments we will be successful.”
- “All of my lecturers were approachable.”
- “My lecturers were always available; you can ask them any time to help you.”
- “The lecturer was very helpful and consulted us…arranged for tutoring but unfortunately, not all lecturers were like this one.”
- “I had a lecturer that was always willing to walk the extra mile for me.”

FINDING 10

There is evidence of good relationships between lecturers and students but also strong evidence of a lack of sufficient student-lecturer interactions.

8.2.1.2 Motivation

Student self-motivation is an important personal disposition and, according to the literature study, a credible variable in determining academic success. Mismatch between a students’ learning and the university’s teaching styles has a negative impact on student motivation and leads to high drop-out rates (Visser, et al., 2006; Felder & Silverman, 1988). According to the literature study, the student’s motivation, aspirations, expectations and intentions play a vital role in academic success. Tinto (1975) and Harvey-Smith (2010) emphasise how characteristics such as family support and motivation are brought into a university by the student and how they influence a student’s commitment which promotes attendance as well as graduation rates. The literature study reveals also how career motivation is valuable as it influences a student’s decision making to persist.
According to the outcome of the staff survey that was conducted in 2010 (see the outcome of the survey - appendix A), the staff is of the opinion that in general the students have very low self-motivation levels (42%). The survey’s reflection on academic environment (4.3.1.2 of the staff survey) also shows very low levels of staff motivation (60%).

The majority of participants were of the opinion that their primary source of motivation to continue and succeed in their studies was their family members and/or parents. Some of the participants were of the opinion that the VUT staff could have motivated them more during their studies.

INTERVIEWEE RESPONSES:

SELF-MOTIVATION

- “I am motivated to study because I want to be successful in life…I want to contribute to the country’s economy.”
- “I want to improve my skills.”
- “I soon realised that to study at the VUT is not fulfilling my dreams and I will definitely not reach my personal goals.”
- “I need a qualification in order to participate as a citizen in the well-being of the country.”
- “I want to achieve my goals within 10 years …but you get here (VUT) and you think that this is part of your dream, only to find out that this is not working for me because there are too many difficulties …to reach my goals.”

VUT STAFF

- “One of my lecturers was my main motivator.”
- “My family members and some of my lecturers motivated me.” (see also “Family”)
FAMILY

- “My father supported me and he motivated me.”
- “My family members and some of my lecturers motivated me.”
- “My mom begged me to continue…”

SOCIO-ECONOMIC

- “I motivated myself, I want to be educated and to earn a better life; I want to escape from poverty.”

FIRST GENERATION STUDENT

- “I stayed with my grandfather. He did not motivate me, he never attended a function at school and he never discussed my experience at the VUT with me…he is the bread winner…I had to do all the homework first before I could study …I moved to my friends’ house; his mother motivated me to study but I think it was then already too late.”
- “I am the very first kid in my family that study at a university”.
- “Not my parents or any other family member went to college or university”.
- “My brother studied at UJ…”

NOT MOTIVATED

- “I was not motivated…the VUT was not my first choice, they did not offer what I was looking for.”
- “They did not accept me because of my results but the VUT did.”
FINDING 11

Students are either self-motivated to complete their studies or receive their motivation from their parents, lecturers, family members or are motivated by their socio-economic circumstances.

FINDING 12

Participants that were first-generation students experienced a lack of understanding or empathy from their family members for the demands of being a student at an institution of higher learning.

FINDING 13

There were participants that were not motivated for the studies due to the fact that the VUT was not their first choice institution of higher learning or the fact that they did not study what they initially intended to study.

8.2.1.3 Transition from high school to university

The literature study discusses the “transition theory, as well as the views of Schlossberg, Water and Goodman (1995) on the concept, transition. The first semester of a first-year student should be viewed as the “transitional period”. It is during this phase that students experience social, emotional and financial difficulties (McInnis, 2001). Tinto (1988) emphasises the importance of sufficient support to the students’ movement through the phases of separation, transition and integration or incorporation. This reminds of Von Gennep’s “rites of passage” where the individual is separated from his/her past
associates towards a new membership. Isolation may occur during this phase. Institutions of higher learning should therefore support students in their separation phase when they depart from their past (school) associations and their efforts in adopting the new institutional membership with its own norms. During the transitional phase a student should learn the knowledge and skills that are required to be fully incorporated in the new environment.

INTERVIEWEE RESPONSES:

LACK OF MOTIVATION

- “I tried to motivate myself, but there was nothing good at the university, it was also not the same as at home.”
- “The lecturers scared us… we needed more support because we came from a school background where we receive much support from our teachers; it is (at university) not the same as in school,”
- “The lecturers did not motivate us… we expected that from them (lecturers), like when we were at high school, we expected everything from our teachers… and they (the teachers) motivated us.”
- “I did not feel part of the institution during the first semester…the lecturers didn’t support us.”
- “There was but no information available at the beginning of the year on how to solve problems as first-year students.”
- “I was like an alien (first-year).”
- “It was very difficult (to be a first-year student). There is a big difference between the school and the university. I didn’t find it very easy (as a first-year student at the VUT).”
INTEGRATION AND INCORPORATION

- “I felt welcomed during my study… the warmth of the institution…I felt as if I was part of the VUT family.”
- “We need much more support, it is not the same as in school, the lecturers scared us by reminding us that this is a university and not a school… but I needed (at that stage) much more support.”
- “I did not take part in any social activities…I felt alone”
- “I played a lot as a student and I was not committed to my studies”

FINDING 14

Students that do not receive sufficient support during their transition period from high school to higher learning find it difficult to be incorporated as new members of the VUT.

8.2.1.4 Finance

According to the literature study, factors that influence drop-out rates are on individual student level, on institutional level or on supra-institutional level (finance and other economic factors). The students’ socio-economic and academic background is known to have an impact on academic success. A major factor for high drop-out rates is related to financial reasons. The majority of the VUT students come from a relatively low economic status category family background. Sekhukhune’s research (2008) is relevant to the VUT situation. The majority of students can therefore be regarded as victims of psychological stress (Sekhukhune, 2008) and are more likely to terminate their studies in comparison with students from a higher economic status category background.
According to Sekhukhune (2008), five of the ten students in his research terminated their studies due to the fact that they did not receive funds from NSFAS in good time. These students were not in a position to pay outstanding fees or to find ways to pay their outstanding fees. The student satisfaction survey shows that the VUT respondents are not satisfied with the provision of services related to financial support at the VUT including accurate information about financial liability (49%), information about a range of financial schemes (45%) and information on various types of bursaries (41%). The interviewers are of the opinion that the majority of interviewees regard factors that are related to finance as one of the major reasons to terminate their studies.

INTERVIEWEE RESPONSES:

NSFAS

- “I experienced a NSFAS problem: they paid too late.”
- “NSFAS took too long to respond…”
- “NSFAS rejected my application. I only received an sms with the message “rejected” without any reason. It was so difficult for my mom to pay the fees because we suffer financially…but finance was not the main reason for me to terminate my studies.”
- “I passed all my subjects but I had to leave the institution...NSFAS could not pay all my fees...the institution will take me to the Credit Bureau...I was not informed about NSFAS and I applied not in time...I think the institution can inform us better on finance (availability of bursaries).”

POOR MATRICULATION RESULTS

- “I study not what I initially want to become one day, but at least it was a way not to join the bad situation in township by joining groups that are doing
drugs…people staying at home are usually in trouble… I am what I am and I am different.”

- “My school points were not that good and I could not register for that course… demotivated me.”
- “I did not like the course that I studied because that was not what I want to be one day.”
- “I had to register for something quite different…”
- “They (the administrative staff) looked at my points and then told me that I cannot study that course. Then they told me to change and to try Graphics…but with Graphics you do not get financial support.”

FINANCIAL REASONS

- “I suffered financially; it was difficult and very bad. My mom is the only one working in our house… my dad is not working.”
- “I had no money to pay (my fees) and I cannot come back (continue with studies). Finance is my major reason (for termination of studies)...I was not informed about NSFAS (information on support and procedures).”
- “I was not successful due to financial reasons.”
- “I have no family problems. The only reason was finance: my family cannot support me (financially).”
- “I couldn't pay (my fees) although I was successful in my studies…I had to pay for transport and other expenses…but I could not manage. I think that if I could stay in the residence it would be better for me.”
- “I had to travel every day from home all the way to the VUT...expensive and a waste of time.”

LACK OF INFORMATION

- “What the VUT can do is to assist students more (information on bursaries and administrative support). If we (students) receive more financial assistance we can complete our studies.”
• “I cannot apply for NSFAS because I have not an ID. I applied but I was not successful.”
• “With graphical studies you cannot get financial support...NSFAS...They (high school teachers) told us that if we study hard we can apply for bursaries.”

OTHER

• “Finance was not a reason...I will register again.”

FINDING 15

The late payments of NSFAS funds can contribute to early termination of studies.

FINDING 16

Early termination of studies can occur due to the fact that students are not able to pay outstanding accounts.

FINDING 17

Students that came from families with a relatively low economic status category of family background are more likely to drop out.
FINDING 18

Students that are not successful in their application to study a specific course due to entry requirements are more likely to be less motivated.

8.2.1.5 Career guidance and individual consultations

According to the literature study and the studies of Prinsloo (2009) and Byrd and McDonald (2005), one of the variables that has an impact on student throughput is that students should have clear career goals. Career guidance is therefore imperative and should not be underestimated. The literature study emphasises the importance of career influences with reference to the study of Byrd and McDonald (2005). Career influences include career motivations that influence a student’s decision making to attend university and to persist in his/her studies. This underpins the readiness theory and the student’s level of preparedness for higher education.

The interviewers are of the opinion that many of the participants were not informed of the counselling services available on campus or that many of the participants did not utilise the available counselling services. A major concern is the availability of student counselling services to the other sites of delivery of the VUT (satellite campuses). The student satisfaction survey shows a relatively low satisfaction rate with regard to career counselling at the VUT (Appendix A). The satisfaction rate for career counselling is 58% and the importance rate 82% with a significant high performance gap of 24%. The high importance rate emphasises the need of sufficient and effective career guidance. The literature study emphasises the importance of “formal” student services with reference to student counselling which includes individual consultations and career guidance as factors that impact on student retention.

The following are some of the responses of the participants that are related to the readiness theory including career goals and career/student counselling:
INTERVIEWEE RESPONSES:

LACK OF INFORMATION

- “I was not aware of student or study support.”
- “I didn’t go for counselling or any kind of support. I didn’t know where to find them…”
- “Why can they not send VUT staff to the schools by the end of each year… we did not know what to study and what we need (entry requirements).”
- “I can say yes (that I am aware of student support services on campus) but they are not visible…”
- “I did not attend the orientation programme…”
- “I studied at TUT previously and I did not think that I need to attend the orientation programme”

POSITIVE STATEMENT

- “The HOD told me to go there (counselling)…this didn’t help very much. They tested me and sent a report to the HOD…then the HOD supported me.”
- “I think I should plan better next time and put much more effort in my studies.”
- “I know about this service (student counselling).”
- “I went for student counselling and they helped me.”
FINDING 19

Students should be informed with regard to the availability and location of academic support services on campus.

FINDING 20

Potential VUT students should receive sufficient information on the different career opportunities, the range of VUT courses and general VUT information such as registrations, fees and entry requirements in advance.

8.2.1.6 Teaching and learning

The literature study discusses the notion of teaching and learning in detail. It also emphasises that students that are studying in a second or third language experience difficulties with regard to teaching and learning. A certain threshold of English proficiency, linguistic skills and study skills are imperative for academic success. This concurs also with studies conducted at the VUT (Hendrich, 2007; Hendrich, 2011). Vecchio and Guerrero (1995) state that students should be proficient in the language in which they are taught in order to ensure academic success. Students find it difficult to adjust to the teaching and learning styles in higher education. Sometimes they find it difficult to cope with the volume of work.

The literature study emphasises the importance of learning proficiencies and teaching styles and refers to the work in this regard of Visser, McChlery and Vreken. It is imperative for lecturers not to introduce learning experiences that do not match with students’ learning preferences. Mismatches between students’ learning styles and a lecturer’s teaching style have a negative impact on student motivation and can lead to
underperformance and even a high drop-out rate (see also the work of Prebble, Hargroves, Leach, Naidoo, Suddaby and Zepke in the literature study). The interviewers had an interview with one participant that could not understand the majority of questions during the interview. The interviewers had to explain the relevant questions or had to move on with a next question. This interviewee was a Portuguese speaking participant from Angola. Some of the interviewees mentioned that they find it difficult to understand lecturers that have accents that they are not used to.

The following are some of the reflections of the students that relate to teaching and learning:

**INTERVIEWEE RESPONSES:**

### STUDY LOAD

- “No one can cope (study load).”
- “The work load was too much…I couldn’t handle the studies…it was too hard for me.”

### TEACHING STYLE

- “The lecturer only read to us; we can stay at home and read the text book ourselves…”
- “The lecturer never gave feedback to us.”
- “I came all the way from Orange Farm to listen to a lecturer that reads (from the text book)... not acceptable.”
- “I sometimes ask him to slow down…”
- “He would come late, sometimes 10 minutes late, then he took out a book and read…we asked him a question…he said we should ask questions during the tutorials.”
• “On Fridays he will sometimes not show up or he will come late…making a lot of jokes and then try to finish the lecture in the available time.”
• “They (the lecturers) did not explain in a nice way to us…”

LANGUAGE

• “The Nigerian lecturer is not used to speak English…we did not understand.”
• “Why don’t they appoint a Sotho, Zulu or Xhosa-speaking person?”
• “The lecturers couldn’t explain in Portuguese to me…”

CURRICULUM

• “There is little relevance of the contents to the world outside; what is the relevance of it to our occupation one day?”
• “The curriculum…will that knowledge help us after graduation?”

LECTURE-STUDENT ATTITUDE

• “Lecturers should be able to explain things in a nice way to us.”
• “The tutor will sometimes show up late and then he told us there is not much time…there are things that he should do in town.”

LEARNING SUPPORT

• “I needed at that stage study group support or extra classes, but it was not available…even group discussions.”
• “You have to do things on your own which is very difficult. I think it is better to work in teams…”
• “We never had a proper discussion during feedback…only rush through it.”
• “Lecturers should take time with us (students) especially those that are in trouble.”
• “He will not discuss or give us feedback (on assignments)...we expected that (he should give feedback).”
• “I was not aware of (the availability of) student or study support (at the VUT).”

POSITIVE EXPERIENCE

• “Some of our lecturers were very good.”

EXPECTATIONS

• “I think they should train us to present in front of a class.”
• “What you should do (the VUT) is to give the students study guides.”

LEARNING/ LEARNING MATERIAL

• “I did plan for my studies but I didn’t keep to it, I was not dedicated.”
• “We received our text books very late.”
• “We received only a sort of a manual...but not a study guide.”

8.2.1.7 The learning environment and living conditions

The literature study refers to the study of Njola (2002) on learning environments. Good learning environments are constituted by the availability of writing desks, food, clean water and a clean environment. The impact of living and learning conditions is vitally important for the students’ critical thinking and intellectual development (Burnet, 1955). Sekhukhune’s (2008) study emphasises the impact of inadequate availability of student accommodations as an important factor for high drop-out rates. The physical environment has an effect on human behaviour and perceptions. An institution of higher learning should create a welcoming environment that offers students a sense of community and belonging. Harvey-Smith (2010) states that the interaction between
students and their campus environment develops a student-institution relationship, which has an impact on student satisfaction, academic achievement and persistence. The survey that was conducted at the Secunda campus with the 2010 students focused on this interplay between the student and the academic environment from an invitational education point of view and against the background of the theories of Spady, Tinto, Andres and Carpenter.

INTERVIEWEE RESPONSES:

RESIDENCE

- “I did not take part in the activities of the university because I was not a residence student.”
- “I applied five times for the residences but without success…big corruption going on there, the SRC is not the right body to deal with applications.”
- “I need to leave very early in the mornings when taxis are not available but there was no accommodation available at the university.”
- “To stay in the hostels is better...there are no facilities (library, study venue, computer facilities) at home.”
- “You cannot study at the Res, you need to study in the library.”
- “We do not have information on what to do if things went wrong with our application (residence).”

DOMESTIC ISSUES

- “It is very difficult at home, I have too much responsibilities at home.”
- “My grandfather told me that this is the last candle stick for this month, why am I using it (for study purposes).”
INFRASTRUCTURE AND FACILITIES

- “The computers are usually off-line and it makes it difficult to complete an assignment.”
- “The computer centre is too crowded…students stay too long on the computers.”
- “Access to computers and printers was a major problem.”
- “The toilets were not clean…no toilet paper…we need to use it because we travel from far each day.”
- “They clean the toilets in the mornings only.”
- “Some of the classrooms were unclean…too many students…we sat on the floor.”

FINDING 21

There are lecturers that implement unacceptable teaching and learning methods (reading from text books, no sufficient feedback on assessment, etc.) which is a transgression of the VUT teaching and learning principles of social constructivism.

FINDING 22

Teaching and learning and effective communication between student and lecturer can be hampered if lecturers have “foreign accents” or if they are not proficient in one of the major South African black languages (Sotho, Zulu or Xhosa).
FINDING 23

Resident accommodation provides a better study environment (study space, close to facilities and support) for students and alleviates problems such as transport.

FINDING 24

Student access to computers and printers, as well as the VUT’s high frequency of IT technical-related problems, contributes to teaching and learning problems.

FINDING 25

A campus that is not clean and has a lack of proper facilities, contributes to an environment that is not conducive for effective learning.

FINDING 26

Study load can be a factor that contributes to early termination of studies

8.2.1.8 Absenteeism

According to the literature study, students who attend classes regularly are more likely to be successful in their studies than the students that are frequently absent. It is sometimes necessary for lecturers to rework with students that were absent. This is a waste of time and a waste of valuable resources. Students that are frequently absent are missing peer-lecturer interactions and the lecturer/tutor's clarifications of concepts
which cannot be successfully replaced by means of reteaching (Williams, 2000). The literature study mentions the following possible factors that contribute to absenteeism with reference to the studies of Mayer and Mitchell, Weller, Williams, Marburger, Wadesongo and Machingambi:

- Courses/subjects are not interesting or challenging
- Student has a negative self-image
- Student has a lack of interest in studies
- Inadequate teaching skills
- Poor student-lecturer relationship
- Non-attendance due to part-time jobs (financial reasons)
- Non-attendance in order to catch-up with assignments, tests, etc.
- Lack of student motivation
- Social reasons – students in company of friends and peers
- Distance from university
- No confidence in lecturer

**INTERVIEWEE RESPONSES:**

During the interviews it was clear that the participants are of the opinion that they attended lectures on a regular basis, accept for the following individual’s responses:

- “I couldn’t attend classes on the days that I work shifts...I had to arrange with my boss sometimes.”
- “We sometimes came to school (VUT) only to study or to complete our work... the availability of printers and computers was always a problem.”
- “I played too much...I was not serious, there was for me not enough time for studies.”
RESPONSES FROM THE LECTURERS

Interviews were conducted with eight lecturers that were representatives of each of the Faculties at the Vanderbijlpark campus. All lecturers were of the opinion that absenteeism is a factor for lack of student success at the VUT. Lecturers that have large classes indicate that they are not using registers because it is time consuming. It seems that lecturers with smaller classes are more likely to take regular roll-calls.

Forty questionnaires (ten per faculty) were furnished to staff members in order to collect more specific information with regard to absenteeism at the VUT. The following table gives a summary of the outcome of the survey. The first row of the table indicates the questions with a summary of the answers of the respondents in the columns.

SUMMARY: ABSENTEEISM AND ITS IMPACT ON THE DROP-OUT RATE AT VUT

<table>
<thead>
<tr>
<th>Is absenteeism a possible factor?</th>
<th>Class register is taken</th>
<th>Motivate your answer for absenteeism</th>
<th>What is the main reason for absenteeism?</th>
<th>How can the problem be resolved?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most lecturers feel that absenteeism is one of the main factors in student performance.</td>
<td>Registers are regularly taken. In some cases registers are not taken due to too large classes.</td>
<td>• Students’ attitude seems to be a problem. • Students make the wrong choice on registration and realise that they cannot manage. • Students who miss out on teaching are not able to perform in exams and tests. • Transport is a problem for Educity students. • Fridays and tests days for other subjects result in poor attendance.</td>
<td>• Culture of teaching and learning is at its lowest. • Lack of personal and subject interest of students exists. • Part-time jobs affect students’ attendance. • Students who are repeating feel that they do not have to attend, since they know the subject content. • No punitive measures for students are in place. • Students need to undergo a paradigm shift from school learner to university.</td>
<td>• Management must support Staff in this struggle and not side with students. • Impress upon students the value of attending classes. • Implement rigorous policies on attendance (70-75% class attendance compulsory). • Provide lecturers with skills to monitor class attendance and to deal with at-risk/ absent students. • An attitudinal and behavioural analysis of the type of students needs to be</td>
</tr>
</tbody>
</table>
students are irresponsible. Test results are manipulated to meet the throughput rates, hence students are not interested and feel that they will pass in any case.

Student as well as lecturer feedback on class teaching is very important. Assign a relevance and grade for class attendance. Students must take responsibility for own actions. Prevent the clashes of subjects early. Counselling should be made available. Introduce fingerprinting technology for attendance. University must address absenteeism as a matter of urgency.

FINDING 27: There is a need for the implementation of a policy on class attendance/absenteeism

8.2.1.9 The early warning system of the VUT

The literature study reflects on the study of Subotzky and Prinsloo (2011:183). They state that mutual responsibility depends on mutual engagement between institution and students, which in turn depends on actionable mutual knowledge. Qualitative and quantitative intelligence (student- and institutional-related intelligence) should be used to identify, predict and address risks effectively. This requires student profiling, tracking of trends in student activity, behaviour and institutional practices and services. They emphasise that an effective tracking system should not only “go beyond the conventional provision of quantitative student cohort academic data” (Subotzky & Prinsloo, 2011:183), but also incorporate these sources and intelligence to predict risks. Students should take part in planned self-assessment of risks, constituting a mutual process.
The early warning system is in place and working, but the perception of the information analyst of the Institutional Planning Unit is that the adoption rate of the system by the academics is very low. The core system is reliant on test data to be captured on the system. The system cannot be utilised if lecturers fail to load test marks. If students are not appearing on the system according to their class groups, the test marks cannot be captured.

The following are responses from the lecturers' questionnaire on the utilisation of the early warning/tracking system:

**WRITTEN RESPONSES FROM LECTURERS:**

**WHY DON'T YOU USE THE TRACKING SYSTEM?**

*77% of the respondents indicated that they do not use the system:*

- “The system is down 70% of the time. If you keep your own record it is much easier to do your own analysis.”
- “My marks were on ITS within a week after every test but no email was sent to me or the HOD...I am under the impression that this should happen automatically.”
- “It has not been investigated well...no one has spoken to me about it.”
- “I do not know about it.”
- “I am not aware of it and I don’t know how it works.”
- “It’s not my interest if the learner quits...this means the learner does not have direction in life or that he got to a wrong discipline.”
- “I don’t know any tracking system that is in place at the VUT.”
- “No idea.”
- “Time constraints, market sheets are not ready in time on ITS, not enough resources to do so effectively.”
“I did not know about such an official system. However, I do enter students’ marks as soon as class lists are available. My smallest class last semester was 130 and the largest 150 students. It is therefore difficult to reach the ones who apparently won’t or can’t cope.”

“Not given information in advance.”

“Think the problem is implementation.”

“System is not easily accessible.”

**WHY DON’T YOU USE NBT TO IDENTIFY AT-RISK STUDENTS?**

80% of the respondents indicated that they do not use NBT to identify at-risk students.

“Lot of administration involved due to large numbers of students.”

“NBT is only administered after students registered. Would be useful but not required.”

“During the 1st semester of 2011 less than 25% of our Maths I and II students wrote NBT and although I have been asking for those marks, I literally received them only yesterday (during the week of 21-25 November 2011). Besides, their correlation with Maths I marks is about 0.3 whereas the Grade 12 Maths mark gives a correlation of 0.6 plus.”

“Results are released too late in the semester. Very few students take the tests, e.g. 24%…”

“There is no evidence that there is any correlation between the test and student performance.”

“VUT stats are more user-friendly; the data is immediately available in figures or graphs…”
WHY DON’T YOU USE GSAT (APTITUDE) PROFILES TO IDENTIFY AT-RISK STUDENTS?

There is no indication that the respondents utilise GSAT profiles to identify at-risk students. Reasons for not utilising it range from a lack of information, knowledge about GSAT, confidence in the mechanism, unawareness, too large classes, etc.

- “I don’t know if VUT has this in place.”
- “Large numbers of students; one cannot cope.”
- “Unethical…don’t have access to it.”
- “I believe the Grade 12 marks are the best predictor of success in mathematics…I do not know that those marks are available.”
- “Not conversant with GSAT.”
- “There are no tools for this GSAT or someone is not filtering down the information to the relevant people…”
- “No idea how it works and due to time factor, I don’t think I will be able to do it since in most cases I focus completely on my syllabus.”
- “I don’t know about it.”
- “This is the first time I am coming across this test.”
- “Results not available on time.”

FINDING 28: The early warning system is not utilised effectively to identify and track at-risk students

8.3 Conclusion: Empirical study

The purpose of this study was to collect information by means of a literature study and an empirical study that inform the development of a hypothetical conceptual framework on student success at the VUT. This study investigated concepts with regard to student success, collected qualitative and quantitative information from drop-out students of 2010 as well as staff and students that took part in institutional quality evaluations during 2010 (satisfaction surveys) in order to understand a complex phenomenon such as
student success and drop-out at the VUT. The study utilised the collected information and data to inform the development of a framework that will be suitable for understanding the student journey from a phase of disassociation to incorporation and membership of a first-year student in a new dimension (higher education at the VUT).

This study confirms the statements of Hall (2001) and Prinsloo (2009) with regard to the complexity of finding “the” factors that might contribute to drop-out or student success. This study concurs with the literature study that the variables with regard to student success/drop-out are complex and multiple. The myriad of variables operate on individual student level, on institutional level, as well as on supra-institutional level. With reference to the literature study, the information and data gathered and the interpretation of the quantitative and qualitative data and information, this study concurs with the literature study that the following are some of the factors that can be regarded (in different forms of combinations) as contributing to the drop-out of the 2010 cohort of students at VUT:

8.3.1 Correspondence of findings with the literature study

The following table 4 shows a correlation between the literature study and the findings of the empirical study:

Table 4: CORRESPONDENCE OF FINDINGS WITH THE LITERATURE STUDY

<table>
<thead>
<tr>
<th>LITERATURE STUDY</th>
<th>CORRESPONDING FINDINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Demographic factors</em></td>
<td><strong>FINDING 1</strong></td>
</tr>
<tr>
<td></td>
<td>93% of the first-year students who dropped out are of South African citizenship, while 7% are international students.</td>
</tr>
<tr>
<td>Role of motivation including self-motivation.</td>
<td>FINDING 2</td>
</tr>
<tr>
<td>Career goals but poor academic results.</td>
<td><strong>The majority [i.e. 90%] of the students are from the Black student population.</strong></td>
</tr>
</tbody>
</table>

| FINDING 3 |
| **61% of the first-year students, who left prematurely, are males. By comparison, 39% of the female population dropped out.** |

| FINDING 4 |
| **The age group in which the most drop-outs occurred, was the 20 – 29 years age group, namely 52%** |

| Role of motivation including self-motivation. | FINDING 11 |
| Career goals but poor academic results. | **Students are either self-motivated to complete their studies or receive their motivation from their parents, lecturers, family members or are motivated by their socio-economic circumstances.** |

| FINDING 13: |
| **There were participants that were not motivated for the studies due to the fact that the VUT was not their first choice institution of higher learning or the fact that they did not study what they initially intended to study.** |

| FINDING 18 |
| **Students that are not successful in their application to study a specific course due to entry requirements are more likely to be less motivated.** |

| Student perceptions regarding the module/course. | FINDING 26 |
| **Study load can be a factor that contributes to early termination of studies.** |

<p>| Finance. | FINDING 6 |</p>
<table>
<thead>
<tr>
<th>Language.</th>
<th>FINDING 22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students that learn in a second and third language experience the VUT medium of instruction as a barrier</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teaching styles/learning preferences/different modes of student learning.</th>
<th>FINDING 21</th>
</tr>
</thead>
<tbody>
<tr>
<td>There are lecturers that implement unacceptable teaching and learning methods (reading from text books, insufficient feedback on assessment, etc.)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Living conditions of students.</th>
<th>FINDING 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-year students who did not stay in official VUT student residences had by far the highest drop-out percentage, namely 95%. By comparison, only 5% of the students who stayed in official VUT student residences dropped out.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>FINDING 23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resident accommodation provides a better study environment (study space, close to facilities and support) for students and</td>
<td></td>
</tr>
</tbody>
</table>

84% of the first-year student population in 2010 who were not NSFAS recipients left prematurely, while only 16% of the students who were NSFAS recipients dropped out.

**FINDING 15**

The late payments of NSFAS funds can contribute to early termination of studies.

**FINDING 16**

Early termination of studies can occur due to the fact that students are not able to pay outstanding accounts.

**FINDING 17**

Students that came from families with a relatively low economic status category of family background are more likely to drop out.

First-year students who did not stay in official VUT student residences had by far the highest drop-out percentage, namely 95%. By comparison, only 5% of the students who stayed in official VUT student residences dropped out.

**FINDING 23**

Resident accommodation provides a better study environment (study space, close to facilities and support) for students and
<table>
<thead>
<tr>
<th>Poor schooling.</th>
<th>FINDING 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>93% of the first-year students who dropped out are of South African citizenship, while 7% are international students.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Learning environment.</th>
<th>FINDING 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>The majority [i.e. 90%] of the students are from the Black student population.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First generation student.</th>
<th>FINDING 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-year students who did not stay in official VUT student residences had by far the highest drop-out percentage, namely 95%. By comparison, only 5% of the students who stayed in official VUT student residences dropped out.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Poor student-lecturer interaction/integration.</th>
<th>FINDING 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is evidence of good relationships between lecturers and students, but also strong evidence of a lack of sufficient student-lecturer interaction.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Retention variables differ by level of</th>
<th>FINDING 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>alleviates problems such as transport.</td>
<td></td>
</tr>
</tbody>
</table>
course, subject, institution, age, socio-economic group and “quantitative" subjects such as sciences.

<table>
<thead>
<tr>
<th>Finding</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>The majority [i.e. 90%] of the students are from the Black student population.</td>
</tr>
<tr>
<td>3</td>
<td>61% of the first-year students who left prematurely are males. By comparison, 39% of the female population dropped out.</td>
</tr>
<tr>
<td>4</td>
<td>The age group in which the most drop-outs occurred, was the 20 – 29 years age group, namely 52%.</td>
</tr>
<tr>
<td>7</td>
<td>The main campus had the highest drop-out percentage in 2010, namely 57%, while the satellite campuses totalled 43%.</td>
</tr>
<tr>
<td>9</td>
<td>The faculty with the highest drop-out percentage, is the Faculty of Engineering [37%], followed by the Faculty of Management Sciences [29%], the Faculty of Human Sciences [20%] and lastly, the Faculty of Applied &amp; Computer Sciences [13%].</td>
</tr>
<tr>
<td>19</td>
<td>Students should be informed with regard to the availability and location of academic support services on campus.</td>
</tr>
<tr>
<td>20</td>
<td>Potential VUT students should receive sufficient information on the different career opportunities, the range of VUT courses and general VUT information such as registrations, fees and entry requirements in advance.</td>
</tr>
</tbody>
</table>
The early warning system is not utilised effectively to identify and track at-risk students

**FINDING 24**

Student access to computers and printers, as well as the VUT’s high frequency of IT technical-related problems, contributes to teaching and learning problems.

**FINDING 25**

A campus that is not clean and has a lack of proper facilities contributes to an environment that is not conducive for effective learning.

**FINDING 14**

Students that do not receive sufficient support during their transition period from high school to higher learning find it difficult to be incorporated as new members of the VUT.

**FINDING 27**

There is a need for a policy on class attendance and absenteeism.

8.3.2 Triangulation of findings and literature study with satisfaction survey conducted with VUT staff and students in 2010

A satisfaction survey was conducted with staff and students of the Vanderbijlpark campus as well as the Secunda campus in 2010. Satisfaction surveys form an integral part of the cycle one exercises (self-evaluation) of the VUT’s quality assurance review processes. The survey questionnaires are designed to give the respondents an opportunity to comment honestly and anonymously on the best and worst aspects of their experiences (Davies, 2003). The outcome of the survey at the Secunda campus was utilised as part of a study to determine how invitational the campus is from an
invitational education point of view. The same questionnaires were used with surveys at the Vanderbijlpark VUT campus to determine the satisfaction levels of staff and students as well as the performance gaps with regard to services rendered to the institution’s “internal customers” i.e. staff and students. The outcome of these surveys can be utilised in this study for triangulation purposes.

8.3.2.1 Invitational education point of view

The student satisfaction survey that was conducted at the Secunda campus in 2010 reveals the following as the issues with a performance gap of 20% and more and therefore significant (see Appendix B):

- There is a low participation of students with regard to the enhancement of programme quality - interaction and collaboration of students (Corresponds with Finding 10).
- Lecturers are “disinviting” (Corresponds with Finding 10).
- The needs of the students during their transition phase were not addressed with reference to the first-year Induction Programme (Corresponds with Finding 14).
- Insufficient student-lecturer interaction (Corresponds with Finding 10).
- Physical aspects of the environment are not conducive for effective learning including study space, access to internet, availability of printers, number of computers available for students, venues that can comfortably accommodate students and well-equipped laboratories (Corresponds with Finding 24 and 25).

8.3.2.2 Staff and student satisfaction survey conducted at the Vanderbijlpark campus

The satisfaction survey findings identified the need for enhancements in a variety of areas. The following issues with regard to the student and staff satisfaction survey have performance gap of 20%> and this corresponds with the findings of the drop-out research (see Appendix A: paragraphs 4.3.1.2 and 4.3.2.2):
8.3.2.2.1 Staff satisfaction survey

The items with the largest performance gaps with regard to the staff survey range from conditions of employment, the profile of students, the learning environment and Information Technology. The following items (see Appendix B, paragraph 4.3.1.2) have a significant value of 20%> and correlate with the findings of the drop-out study, the respondents are not satisfied with the following and regard their importance as significantly high:

- The level of motivation of academic staff (Corresponds with Finding 10)
- Time available to reflect on course content and delivery (Corresponds with Finding 26)
- Level of student attendance
- Level of student motivation (Corresponds with Finding 11)
- Extent to which students are self-directed learners - performance gap of 37% (Corresponds with Finding 10, 12 and 13)
- Availability of lecture rooms (Corresponds with Finding 24, 25)
- Efficiency of lecture rooms (Corresponds with Finding 25)
- IT up-to-dateness of hardware (Corresponds with Finding 24)
- Student access to internet (Corresponds with Finding 24)
- Student access to printers - performance gap of 34% (Corresponds with Finding 24)
- IT support (Corresponds with Finding 24)
- Reliability of IT support - performance gap of 32% (Corresponds with Finding 24)
- Landscaping and gardening (Corresponds with Finding 25)

8.3.2.2 Student satisfaction survey

The following items (see Appendix B, paragraph 4.3.2.2) have a significant value of 20%> and correlate with the findings of the drop-out study. The respondents are not satisfied with the following and regard their importance as significantly high:
• Programme orientation (Corresponds with Finding 19 and 20)
• Interesting and appropriate teaching and learning methods (Corresponds with Finding 21)
• Workload that is manageable (Corresponds with Finding 26)
• Interaction/consultation of lecturers-students (Corresponds with Finding 10)
• Communication and information sharing – top management, academic and administrative departments (Corresponds with Findings 10 and 19)
• Laboratories are not well-equipped (Corresponds with Finding 24 and 25)
• Lecture rooms cannot accommodate students comfortably (Corresponds with Finding 25)
• Adequate numbers of computers (Corresponds with Finding 25)
• Support in computer centres - performance gap of 39% (Corresponds with Finding 24)
• Access of students to internet - performance gap of 35% (Corresponds with Finding 24)
• Adequate study space and desks - performance gap of 38% (Corresponds with Finding 25)
• Information on admission procedures (Corresponds with Finding 20)
• Easy-to-follow admission procedures (Corresponds with Finding 20)
• Convenient registration and re-registration processes - performance gap of 44% (Corresponds with Finding 14)
• Efficient application for residence accommodation - performance gap of 30% (Corresponds with Finding 5)

8.4 Recommendations

The following recommendations can be considered by the institution:

**Recommendation 1: EARLY ASSESSMENT OF FIRST-YEAR STUDENTS**

*(Corresponding findings: 1, 2, 3, 4, 7, 9 and 14)*

Ensure that all first-year students are assessed during the first 6 weeks in order to identify at-risk students. NBT/GSAT tests should be taken by all first years and the
results should be accessible to the relevant staff. Staff members should be trained on the utilisation of the early warning system of the VUT.

**Recommendation 2: AWARENESS OF A STUDENT’S “AT-RISK STATUS”**

*(Corresponding findings: 1, 2, 3, 4, 5, 10, 11, 12 and 26)*

Students should be aware of their “at-risk status”. Their parents and the relevant academic and support staff should be informed as early as possible. The at-risk students should also know the possible factors that might have an impact on their performance and the actions that they can consider in order to enhance academic success.

**Recommendation 3: DEVELOP STRATEGIES TO INSTITUTIONALISE THE PRINCIPLES OF INVITATIONAL EDUCATION**

*(Corresponding findings: 10, 11, 12, 14, 18, 21, 19, 20, 24 and 25)*

Student-lecturer relationships that are mutually respectful and supportive can be developed by introducing the principles of Invitational Education. Invitational Education provides a framework to transform the fundamental character of the institution and centres on the four guiding principles of respect (everyone is able, valuable and responsible to be treated accordingly), trust (education is a cooperative and collaborative activity), optimism (people have untapped potential) and intentionality (creation and maintaining of “inviting” places, policies, processes by staff and students that are intentionally inviting with themselves and others by focusing on respect, trust, optimism and intentionality.
Recommendation 4: IMPLEMENT STRATEGIES THAT WILL ENHANCE THE INTERNAL AND EXTERNAL ASPECTS OF STUDENT MOTIVATION

(Corresponding findings: 10, 11, 12, 13, 18 and 26)

Practices that help students to feel that they are valued such as strategising with at-risk students, the adoption of effective teaching styles, informal student-lecturer interactions, positive feedback to students, the creation of open and positive class atmospheres, an environment that is conducive for effective learning, etc., should be considered.

Recommendation 5: IMPLEMENT NEW INITIATIVES WITH REGARD TO THE FUNDING OF STUDENTS

(Corresponding findings: 5, 6, 15, 16 and 17)

Regarding the post-registration variables, the lack of financial support is the second highest reason for premature departure at the VUT. Therefore, strategies should be put in place to alleviate the problem by developing a communication plan to reach potential students at schools and provide information on funding available for tertiary studies and in scarce skills training. Relevant documents should be accessible (online). NSFAS officers should be visible and available to assist applicants during registration period. An electronic agreement form system should be considered in order to process and administer NSFAS funding. NSFAS officers should receive training.

Recommendation 6: IMPLEMENTATION OF THE NEW LANGUAGE POLICY AND RELATED INITIATIVES AT THE VUT

(Corresponding finding: 22)

The development of African languages at university is a national imperative according to the 2008 Report of the Ministerial Committee on Transformation and Social Cohesion and the Elimination of Discrimination in Public Higher Education Institutions. Initiatives such as policies and strategies should address the feeling of marginalisation by English second language speakers on campus. The current development of a new language
policy and the implementation of strategies to enhance multilingualism at the VUT may address the problem.

**Recommendation 7: IMPLEMENTATION OF THE TEACHING AND LEARNING MODEL OF VUT**

(Corresponding finding: 21)

The social-constructivist approach of education followed at VUT makes it imperative for all academics to engage students in learning activities (learn-by-doing). This active learning approach will eliminate the proliferation of the use of text books as the only source of teaching. Implementing an appropriate assessment strategy will ensure that timeous feedback is given to students.

**Recommendation 8: THE ESTABLISHMENT OF A FACULTY FIRST-YEAR ROUND TABLE BASED ON A MULTIDISCIPLINARY APPROACH**

(Corresponding findings: 1, 2, 3, 4, 5, 10, 11, 12, 14, 18, 21, 22, 24, 25 and 26)

The establishment of a First-year Roundtable should be considered as a multidisciplinary approach to discuss and realign/adjust the initiatives of the VUT as a process in enhancing academic success. Staff (academic non-academic, and professional support units) and students should deal with all the activities that impact on the academic success of the first-year students. This forum may ensure that first-year students, support services and academics complement each other. Meetings should be conducted at least once a semester. Gaps and duplication of initiatives can be avoided by means of a well coordinated system and informed stakeholders. This approach will enhance the institution’s knowledge of the student and the students’ knowledge of the institution.
Recommendation 9: REVISION OF THE RESIDENCE POLICY AND APPLICATION PROCEDURES

(Corresponding findings: 5 and 23)

As is clear from the quantitative study, the most urgent matter that needs to be addressed is the high drop-out rate (i.e. 95%) of the first-year students who make use of private accommodation. Every effort should be made from the start to ensure that strategies are put in place to positively integrate first-year students (particularly non-resident but also resident students) into the academic and social communities of the VUT, as this enhances retention. Furthermore, urgent attention should also be given to the building of more VUT residences. First-year students should receive priority for residential accommodation. The current policy should be revised.

Recommendation 10: REVISION OF THE EFFECTIVENESS OF THE EARLY WARNING SYSTEM AND THE IMPLEMENTATION OF AN EARLY WARNING POLICY

(Corresponding finding: 28)

The revision of the current system should be considered which includes the evaluation of the fitness of the IT system, the effectiveness and impact of the implementation of NBT and GSAT (aptitude) initiatives, the implementation and impact of the tracking system followed by a process of adjustments and remedial actions. The outcome of this exercise should inform the development of a policy enforcing the capturing of test marks at least 10 days after assessments should be considered. The training of staff to effectively utilise the system is imperative.

Recommendation 11: THE INSTITUTION SHOULD DEVELOP A POLICY ON CLASS ATTENDANCE AND ABSENTEEISM

(Corresponding finding: 27)

Further research on absenteeism at VUT should be considered as well as the development of a policy and strategies to deal effectively with class attendance.
Recommendation 12: **THE INSTITUTION SHOULD CONSIDER THE DEVELOPMENT OF A HYPOTHETICAL FRAMEWORK FOR THE UNDERSTANDING AND ENHANCEMENT OF STUDENT SUCCESS AT THE VUT**

(*Corresponding findings: This recommendation relates to all findings*)

The development of a framework on student success should be informed by the literature study with special reference to the systems theory, the readiness theory, the transition theory, the longitudinal model of Tinto, the psychological model of student retention and Spady’s sociological model. As already mentioned in this study, the mutual responsibility of student and institution is imperative in the transformative process of student success. As discussed earlier in this study (Tinto, 1988:439) the process of student departure refers to the first phase of the concept “university journey”. Subotzky and Prinsloo (2011:185) refer to numerous interactions between student and institution during this journey as the “student walk”. The interactions between student and institution should be mutually constitutive. The recommendation is that the VUT should develop a hypothetical framework on the notion of student success through a collaborative process.

Recommendation 13: **ENSURE THAT THE STUDENT SUPPORT SYSTEM CONTRIBUTES TO THE TRANSITION OF FIRST-YEAR STUDENTS FROM A PHASE OF SEPARATION TO INCORPORATION AS NEW MEMBERS OF VUT**

Mechanisms should be in place in order to support students in their “separation” phase when they depart from their past associations (high school environment) and adopt the behaviours and norms that are appropriate to the new institutional membership (VUT student). During the transitional stage, the student should learn the knowledge and skills that are required in order to succeed as a member of VUT. An example is the Tutor System VUT that must be expanded in order to include all first-year subjects.


CTL (See Centre for Teaching and Learning)


HENDRICH, U.G. 2011. The roles that prior learning, intellectual ability, career interest, English language competency and mathematical competency play in the prediction of academic achievement of the 2010 first-year students at the VUT. Research Report, Department of Student Counselling & Support, VUT.


NGIDI, S. 2006. IFP questions ANC U-turn on student numbers. [http://www.ifp.org.za/Archive/Release/110505apr.htm](http://www.ifp.org.za/Archive/Release/110505apr.htm) Date of access:


REAP (See Rural Education Access Programme).


REAP. 2008. Factors that facilitate success for disadvantaged higher education students. 

REAP & University of the Western Cape, 2009. Developing successful graduates and improving throughput rates: expanding core business in higher education. Date of access: 8 September 2011.


SIMPSON


US (see Stellenbosch University)

UWC (see University of Western Cape).


APPENDIX ONE

SATISFACTION SURVEYS: 2010 VUT STAFF AND STUDENTS
SATISFACTION SURVEY REPORT
Staff and Students

November 2010

Dr HJ Brits
Director: Department Quality Promotion
INDEX

1. Introduction ................................................................................................................. 3

2. Aim of the Survey ......................................................................................................... 3

3. Measurement and Sample .............................................................................................. 4
   3.1 Sampling .................................................................................................................. 4
   3.2 Measuring Instrument ............................................................................................... 6
   3.2.1 Questionnaires .................................................................................................. 6
   3.2.2 Scaling ............................................................................................................... 6

4. Discussions of Fundings ................................................................................................. 7
   4.1 Staff Satisfactory Survey ......................................................................................... 7
   4.1.1 Conditions of Employment ................................................................................. 8
   4.1.2 Your Role as Staff Member ............................................................................... 9
   4.1.3 Management and Communication ..................................................................... 9
   4.1.4 Academic Environment .................................................................................... 10
   4.1.5 Information Technology .................................................................................. 11
   4.1.6 Administration / Academic Support and general services ............................. 12
   4.1.7 Most Important Items: Staff Satisfaction Survey ............................................ 13

   4.2 Student Satisfaction Surveys ................................................................................. 14
   4.2.1 Programme Related Items .............................................................................. 14
   4.2.2 Institutional Culture ......................................................................................... 15
   4.2.3 Teaching and Learning Facilities and Support ............................................... 16
   4.2.4 Admissions and Registration .......................................................................... 17
   4.2.5 Finances and Fees ............................................................................................ 18
   4.2.6 Student Services and Support .......................................................................... 19
   4.2.7 Most Important Issues: Student Satisfaction Survey ..................................... 19

   4.3 Performance Gaps ................................................................................................. 20
   4.3.1 Staff Survey ...................................................................................................... 20
   4.3.1.1 Issues With a High Satisfaction Rate ......................................................... 21
   4.3.1.2 Performance gaps of Staff Satisfaction Survey ....................................... 22
4.3.2 Student Surveys ................................................................. 23
4.3.2.1 Issues with a High Satisfaction Rate ............................... 23
4.3.2.2 Performance Gaps of Student Satisfaction Survey .......... 23
5. Remedial Actions ................................................................. 25
6. Conclusion ........................................................................... 26

APPENDIXES

A Student Satisfaction Survey Questionnaire.......................... 28
B Staff: Satisfaction Survey Questionnaire............................... 30
C Staff: Applied and Computer Science.................................. 36
D Staff: Management Sciences................................................. 42
E Staff: Engineering and Technology...................................... 48
F Staff: Human Sciences.......................................................... 54
G Student: Accounting.............................................................. 61
H Student: Bio Sciences.............................................................. 66
I Student: Chemistry................................................................. 70
J Student: Hospitality and Tourism.......................................... 75
K Student: ICT........................................................................... 80
L Student: IT.............................................................................. 85
M Student: NDT and Physics..................................................... 90

BIBLIOGRAPHY.............................................................................. 9
APPENDIXES
APPENDIX A

STAFF AND STUDENT SATISFACTION SURVEY REPORT 2010

1. INTRODUCTION

The Vaal University of Technology (VUT) developed a quality assurance system based on the principles of the systems theory i.e. the implementation of the elements of Total Quality Management (TQM). Central to the quality management philosophy of TQM is the notion of continuous improvement and customer satisfaction. The institution regards the staff and students of the VUT as the "primary customers". The quality assurance system of the VUT is a typical centralised-decentralised system. It consists of internal self-evaluation exercises and external peer reviews within a framework of continuous improvement. The latter is based on the PDCA model (Plan-Do-Check-Act).

The QPU adopted this PDCA model and adapted it to PIRI (Plan-Implement-Review-Improve/adjust). The QPU oversees and facilitates the structured review processes of academic support departments and academic programmes. Quantitative and qualitative data and information are gathered during the review exercises by means of satisfaction questionnaires and interviews (focus groups and one-to-one). The data and information are valuable management information that informs planning/replanning initiatives on strategic, tactical and operational levels. The QPU utilises staff and student satisfaction questionnaires as quantitative instruments to measure the satisfaction level of the VUT’s primary customers (staff and students) with regard to the services that the institution renders to them.

2. AIM OF THE SURVEY

The concept "survey" refers to a study that is usually quantitative in nature and aims to provide a broad overview of a representative sample of a large population. The DVC: Academic assigned the QPU to conduct a satisfaction survey with academic departments in 2010. This exercise wishes to provide a broad overview of the satisfaction level of our staff and students with regard to their experience of the service rendered to them by the VUT as our primary customers. As already mentioned, the VUT’s quality assurance system is based on the principle of TQM, the measurement of the “total experience of the customers” (Harvey & Burrow, 1992:1) is therefore an imperative in order to identify the deficiencies with regard to the service rendered to the customers. Satisfaction surveys forms therefore an integral part of the cycle one exercises (self-evaluation) of the VUT’s review processes. The survey questionnaires are designed to give the respondents an opportunity to comment honestly and anonymously on the best and worst aspects of their experiences (Davies, 2003).
3. MEASUREMENT AND SAMPLE

The QPU conducted a survey with the representative staff members of the Faculties of the Vanderbijlpark campus, as well as with the representatives of students enrolled for programmes that were scheduled for evaluations for 2010. However, the programmes of the Faculty Engineering and Technology were excluded.

3.1 Sampling

As already mentioned, the QPU conducted a satisfaction survey with the staff of the departments of Faculties that were in the review cycle for 2010 (Applied and Computer Sciences, Human Sciences and Management Sciences). This survey reflects on the students’ perceptions of the following departments/programmes: Accounting, Bio-Sciences, Chemistry, Hospitality and Tourism, ICT/IT and NDT and Physics. The survey includes student representatives of the Faculty Applied and Computer Sciences, Management Sciences and Human Sciences.

The QPU assigned all relevant HODs of the respective programmes to administer the process of distribution of questionnaires and collection of completed questionnaires. Questionnaires were furnished per hand by the relevant HODs to senior students (not first year students) of the above-mentioned programmes and to all academic staff members of above-mentioned faculties (including Engineering and Technology). The sample per faculty with regard to staff representatives comprises a reasonably large percentage of the population (Strydom, 2007:195), the concept, population, concurs with McBurney’s definition (2001:258) i.e. a “population” is the totality of persons with which the research problem is concerned. With regard to the academic staff survey, the population should be viewed as the totality of academic staff per faculty.

With regard to the student survey, the HODs follow a probability sampling method by selecting classes that represent senior (not first year) students of programmes under evaluation for the review cycle of 2010. The latter reminds of “panel sampling” which means that a fixed panel of persons is selected from a population of persons (in this context the senior students of a faculty) involved in a particular issue (Strydom, 2007:201). The students that were selected should be viewed as representatives of the relevant population of all senior students of the faculties and of the institution. The students that were present during a specific lecture hour were furnished with student satisfaction questionnaires to be completed and to be handed in by the end of the respective period. The following questionnaires per faculty were fed into the optical mark reader of the QPU after a process of elimination of partially completed questionnaires:
### STAFF SATISFACTION QUESTIONNAIRES

<table>
<thead>
<tr>
<th>FACULTY</th>
<th>NUMBER OF RESPONDENTS/QUESTIONNAIRES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied and Computer Sciences</td>
<td>47</td>
</tr>
<tr>
<td>Management Sciences</td>
<td>43</td>
</tr>
<tr>
<td>Engineering and Technology</td>
<td>45</td>
</tr>
<tr>
<td>Humanities</td>
<td>57</td>
</tr>
</tbody>
</table>

### STUDENT SATISFACTION QUESTIONNAIRES

<table>
<thead>
<tr>
<th>FACULTY</th>
<th>NUMBER OF RESPONDENTS/QUESTIONNAIRES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied and Computer Sciences</td>
<td>228</td>
</tr>
<tr>
<td>Management Sciences</td>
<td>55</td>
</tr>
<tr>
<td>Engineering and Technology</td>
<td>No programmes under evaluation for 2010 cycle</td>
</tr>
<tr>
<td>Humanities</td>
<td>79</td>
</tr>
</tbody>
</table>

The sample size of the *student satisfaction survey* was determined by the calculation of the following factors:

- Margin of error: 5%
- Confidence level: 90%
- Population size: 8101
- Response distribution: 50%
- Recommended sample size: 262
- Actual sample size for this survey: 362

The sample size of the *staff satisfaction survey* was determined by the calculation of the following factors:

- Margin of error: 5%
- Confidence level: 90%
- Population size: 496
- Response distribution: 50%
Recommended sample size: 176
Actual sample size: 192

This study therefore exceeds the recommended sample size for both staff and students as calculated by means of the Raosoft Sample Size Calculator (Raosoft, 2004:1-2).

3.2 Measuring instrument

Structured questions (attitudinal type) were used in the survey (Hague, 1993:29) in order to determine the perceptions of the customers with regard to the service rendered to them by the institution.

3.2.1 Questionnaires

The questions (phrased as statements) of the questionnaires should be viewed as products of a long development process conducted by the director of the QPU. The questions are a mix of minimum standards that were identified by the customers of the VUT over a period of four years. The questionnaires were also informed by generic standards from similar questionnaires that are utilised by universities on national (Cape Peninsula University of Technology), as well as on international levels (e.g. Birmingham University). The questionnaires are viewed by the QPU as “generic” for the measurement of satisfaction for students and staff and will be utilised for benchmarking purposes with other institutions of higher learning on national level. The student satisfaction questionnaire measures the respondents’ satisfaction with regard to programme-related items, institutional culture items, teaching and learning facilities and support items, admissions and registrations processes, finance and fees as well as general student services and support items. The staff satisfaction questionnaire reflects on issues that relate to conditions of employment, the staff members’ role at the VUT, management and communication items, the academic environment, information technology as well as general administration and academic support issues (see attached Appendix A: Student Satisfaction Questionnaire and Appendix B: Staff Satisfaction Questionnaire).

3.2.2 Scaling

Scaling is "a procedure for the assignment of numbers to a property of objects in order to impart some of the characteristics of numbers to the properties in question" (Bernard, 1971: 205). The measuring of customer satisfaction provides any organisation with an indication of how it succeeds in fulfilling the needs and expectations of its customers. Satisfaction survey questionnaires are utilised in this study in order to collect quantitative data to measure how the VUT meets or surpasses the expectations of its primary customers. The respondents evaluated each statement on the questionnaire on a five-point (Likert) rating scale (Cooper & Schindler, 2003: 251). The questionnaires consist of statements on which the respondents were asked to indicate the extent to which they agree or disagree. The respondents chose one of four levels of agreement, or they chose
“not applicable” if a statement is not applicable. The respondents were requested to answer each question by using a pencil or black pen to darken the respective circle next to the question completely. They were requested to answer all questions. Each question has four possible values, the numbers indicating the value to be assigned to each possible answer (1 for very dissatisfied or not very important, and 4 for very satisfied or very important). Each question has a separate column that measures the satisfaction and the importance per item on the questionnaire.

Prior to the survey, the QPU conducted a short introduction session with all responsible HODs with regard to the purpose of the exercise as well as discussing the instrument and method to be followed. The QPU then furnished all relevant HODs with questionnaires that should be completed by staff and students in their respective departments. The HODs administered the entire data collection process (distribution of questionnaires, completion of questionnaires and submission of completed questionnaires to the QPU). The QPU discarded all questionnaires that were partially completed by respondents in order to avoid errors and to enhance validity of the data. The completed questionnaires were labelled by the QPU and the raw data were fed into an optical mark reader. The results were presented by means of graphs followed by an interpretation of the main findings (see attached graphs – Appendixes C – M). The QPU consolidated all data that were gathered from respectively the outcome of the staff and student surveys and presented them in graphical format as a reflection of the VUT’s staff’s and students’ satisfaction levels.

It is important to note that each item on the questionnaires has a satisfaction and an importance column. The respondents rated the satisfaction as well as importance levels during the completion of the questionnaires. The satisfaction and importance levels are important indicators in order to determine the performance gap per item. The performance gap can be determined by means of subtracting the satisfaction rating per item from the respective item’s importance rating. This method concurs with the Noel-Levitz approach to satisfaction surveys. Noel-Levitz argues that the larger the performance gap for a particular item, the greater the concern should be to improve that issue (Harvey et al., 1992:4). The VUT’s managers should therefore identify the items with large performance gaps in order to enhance the specific issue by means of remedial action steps, etc.

4. DISCUSSION OF FINDINGS

The staff satisfaction and student satisfaction survey findings are discussed here as a reflection on the outcome of the measurement of the items on the respective survey questionnaires.

4.1 Staff Satisfaction Survey

The following is a discussion of the outcome of the VUT staff satisfaction survey. This is a consolidation of all the data gathered from the staff satisfaction surveys of the respective faculties on the Vanderbijlpark campus only. (The graphs for the staff satisfaction surveys per faculty and the discussion of the graphs are attached as appendixes).
4.1.1 Conditions of employment

The respondents are satisfied with their flexibility of working hours (Q3 – 65% satisfaction rate), this question has a very high importance rating of 80%. The second highest satisfaction rate is for Q1 with regard to the staff members’ contractual terms and conditions (a relatively high importance rate of 70%). The respondents are not satisfied with the induction programmes for new staff members (Q4). This question has a relatively low satisfaction rate of 48% and a relatively high importance rate of 70%. A question that received a response with a significant low satisfaction value (40%) and high importance rate (80%) is Q5 regarding the staff members’ view on their opportunities for promotion.
4.1.2 Your role as staff member

The respondents are in general satisfied with their role as academics, they are very satisfied with the amount of work that they do at the institution (Q7 – 70% satisfaction and 81% importance), for the opportunities that the institution grants them to develop (Q12 – 70% satisfaction and 80% importance) and the opportunities that they have to utilise their own initiative (Q9 – 68% satisfaction and a very high importance rate of 80%). The question that receives the lowest rate in this category is Q14 on the fact that they cannot participate in research due to their workload (50% satisfaction and 75% importance).

4.1.3 Management and communication
The following issues that the respondents evaluated receive very high importance values (≥80%) and relatively high satisfaction values (≥74%):

- Q21 – working relationship with your line manager
- Q22 – communication with your line manager
- Q23 – support you receive from your line manager
- Q24 – approachability of your line manager
- Q25 – extent to which you are consulted by your line manager regarding matters that affect you
- Q26 – extent to which your line manager takes on board your views
- Q27 – communication with other staff at your level.

The respondents are dissatisfied with the communication of management with regard to strategic planning at the institution (Q15 – 49% satisfaction and a relatively high importance rate of 76%). Questions that receive relatively low satisfaction rates with high importance are Q17 (openness and transparency of strategic management decisions at the VUT) and Q18 (extent to which you are informed about strategic decisions). It seems therefore that although the communication on operational level is effective and to the satisfaction of the majority of respondents, the communication between staff members and top management (tactical and strategic management levels) is regarded by the respondents as dissatisfied.

4.1.4 Academic environment
The respondents are in general dissatisfied with the issues that were evaluated under the concept "academic environment". The questions that receive the highest satisfaction rates were Q28 (autonomy you have over course content – 60% satisfaction), Q30 (time available to support students – 60% satisfaction) and Q45 (opportunities to improve your academic qualifications – 60%). The importance rates for these questions were relatively high (≥70%).

The lowest satisfaction rate for this section was for Q34 (38% satisfaction) on the extent to which students at the VUT are self-directed learners. This question has a relatively high importance rate of 76%. The respondents are dissatisfied with the following issues (importance rate very high ≥75%):

- Q32 – level of student attendance (49% satisfaction)
- Q33 – level of student motivation (48% satisfaction)
- Q39 – amount of lecture rooms available (48% satisfaction)
- Q40 – efficiency of lecture rooms (45% satisfaction)
- Q41 – conditions and cleanliness of lecture rooms (44% satisfaction)

Issues that were evaluated and that received low satisfaction rates (≤50% satisfaction) but not very high importance rates (≤75%) were the following:

- Time available for research – Q31 (42% satisfaction – this question has a relatively high importance rate of 70%)
- Pressure on lecturers not to fail students – Q35 (48% satisfaction)
- Lecture- student ratio in your department - Q36 (50% satisfaction)
- Marking load – Q37 (49% satisfaction)
- Administrative support to lecturers – Q38 (50% - this question has a relatively high importance rate of 70%)
- Research culture and support – Q43 (49% satisfaction)
- Adequate incentives for researchers – Q44 (48% satisfaction)
- Laboratories are adequate and well equipped – Q47 (48% satisfaction)
• Adequate support for the implementation of continuous assessment – Q49 (45% satisfaction).

4.1.5 Information Technology

The respondents are very satisfied with the access that they have to computers and printers (Q50 – 75% satisfaction and a very high importance rate of 85%). They are also very satisfied with the fact that they have access to email (Q51 – 76% with a very high importance rate of 89%) and inter/intranet facilities (Q52 – 71% satisfaction and 86% importance). They are dissatisfied with student access to email facilities (Q54 – 42% satisfaction with a high 74% importance) and very dissatisfied with the access of students to printers (Q55 – 38% satisfaction and 70% importance). Issues with a relatively low satisfaction rate are IT Technical support (52% satisfaction with very high importance rate of 84%) as well as the reliability of the IT system (50% satisfaction and a high importance rate of 81%). The importance rate of the latter two issues and the relatively low satisfaction rate indicate that the respondents are of the opinion that it is imperative that these services should be enhanced.

4.1.6 Administration / Academic support and general services
This report, with special reference to administration and academic support services, will not reflect on the outcome of services that were terminated or functions and structures that were already dismantled or restructured at the time of the survey. The respondents are in general not satisfied with the administration and academic/general support services of the VUT. The highest satisfaction rate is for the library (Q70 – 59% satisfaction and importance rate of 74%). The following issues receive satisfaction rates between 50% and 55%:

Q58 – Human Resource Management (52% satisfaction and a high 76% importance)
Q59 – Finance (52% satisfaction and a high 75% importance)
Q64 – Printers (55% satisfaction and 70% importance)
Q65 – Bookshop (52% satisfaction and 65% importance)
Q68 – Examinations (52% satisfaction and 71% importance)

They are dissatisfied with the following services:
Q60 – Staff counselling (35% satisfaction with a 60% importance)
Q61 – Transport (39% satisfaction with a 58% importance)
Q63 – Landscaping and gardening (42% satisfaction and 64% importance)
Q67 – Short Courses arrangements (42% satisfaction and 58% importance)
Q69 – Marketing (42% satisfaction and 65% importance)
Q71 – Al Fresco Restaurant (40% satisfaction and 50% importance)
Q72 – Community Services (39% satisfaction and 49% importance)
Q73 – Skills Development (45% satisfaction and 65% importance)

4.1.6 Most important items: staff satisfaction survey

The staff satisfaction survey indicates the following dimensions as the most importance issues (importance of ≥85):

- Working relationship with your line manager (Q21)
- Communication with your line manager (Q22)
- Support you receive from your line manager (Q23)
- Approachability of your line manager (Q24)
- Extent to which you are consulted by your line manager regarding matters that affect you (Q25)

The following items have high importance values of ≥80% and < 85%:

- Flexibility of working hours (Q3)
- Amount of work you do at the VUT (Q7)
- Opportunities to use your own initiative (Q9)
- Level of motivation of colleagues in your department (Q11)
- Opportunities for you as a staff member to develop (Q12)
- Your workload permits participation in further study (Q13)
- Approachability of department/faculty management (Q19)
- Extent to which your line manager takes on board your views (Q26)
- Communication with other staff at your level (Q27)
- Your access to a computer and printer (Q50)
- Your access to e-mail (Q51)
- Your access to internet/intranet (Q52)
- Up-to-datedness of hardware (Q53)
- IT Technical support (Q56)
- Reliability of IT system (Q57)

4.2 Student Satisfaction Survey

The following is a discussion of the outcome of the student satisfaction survey for all the departments that were under evaluation during the 2010 department and programme evaluations. The attached graphs (Appendixes G-M) represent the outcome of the student satisfaction survey per faculty. The following graphs represent a consolidation of data that was gathered from each faculty’s student satisfaction survey statistics (see above-mentioned appendixes G-M). The student satisfaction questionnaire is attached to this document as Appendix A. Each question on the horizontal (category) axis of the graphs corresponds with the relevant question on the questionnaire.
The majority of respondents are satisfied with the programme related issues in which they are enrolled. The issue that receives the highest satisfaction and importance value is Q5 (the programme has useful and relevant study guides – 78% satisfaction and 89% importance). They are very satisfied with the following (very high satisfaction and very high importance ratings):

- Q4 – the programmes closely link theory and practice (75% satisfaction and 89% importance)
- Q9 – the programmes clearly state assessment requirements (75% satisfaction and 86% importance)
- Q18 – the programmes develop the ability to work as team members (72% satisfaction and 82% importance).

The evaluation of the commitment of contract and part-time teaching staff receives the lowest satisfaction rate (Q13 – 40% satisfaction and 64% importance). The issue with a low satisfaction rate and extremely high importance rate is Q8 – the staff regularly consults students about the programmes’ quality (52% satisfaction and a very high importance rate of 80%). There is a 30% difference between the satisfaction value and importance value. This is therefore a very important issue that should be addressed. The respondents indicate an average satisfaction rate (between 60% and 69%) with a relatively high importance rate and a difference of 20% and more between each item’s satisfaction value and importance value of the following issues:
• Q3 – Satisfactory orientation for students
• Q6 – the programme employs interesting and appropriate teaching and learning methods
• Q7 – the programme has a workload which is manageable in the time available
• Q14 – develops the ability to successfully solve problems in this field of study
• Q17 – the programme develops competence in using appropriate modern technology

4.2.2 Institutional culture

The respondents are relatively satisfied with the institution’s promotion of an institutional culture. Three issues receive relatively low satisfaction rates and very high importance rates i.e. Q23 (communication between top management and students), Q24 (communication between academic departments and their students) and Q25 (communication between administration departments and students). The respondents view communication between academic departments and students as extremely important, the difference between the satisfaction value and importance value of this issue (Q24) is 30%. The issue that has the highest satisfaction value is Q21 (non-sexist attitudes).

4.2.3 Teaching and learning facilities and support
The issues that receive the highest satisfaction rates for teaching and learning facilities and support are Q35 (convenient library times – 68% satisfaction and 85% importance), Q31 (information desk services in the library – 65% satisfaction and an extremely high importance rate of 85%) and Q32 (a reserve collection in the library for my field of study – 62% satisfaction and an extremely high importance rate of 85%). The difference between the satisfaction rates and importance rates for the latter two questions are more than 20%. The following issues receive relatively low satisfaction rates with extremely high importance rates, this indicates that although the respondents are not dissatisfied with the respective services, they are of the opinion that enhancement of the services rendered should improve drastically:

- Q39 – adequate maintenance of computer facilities (52% satisfaction and an extremely high importance rate of 84%)
- Q41 – adequate access to intranet (55% satisfaction and an extremely high importance rate of 90%).

The respondents are dissatisfied with the following issues, (the difference between satisfaction and importance values is an indication of the need for improvement of the respective issue that was evaluated):

- Q30 – adequate numbers of computers for the number of students (satisfaction rate of 48% and importance of 85%, there is a difference of 38% between satisfaction and importance values)
- Q33 – library which can accommodate the number of students (45% satisfaction rate and a high importance rate of 80%, there is a 35% difference between the satisfaction and importance values)
- Q38 – support in computer centres (42% satisfaction and 82% importance rate, there is a very high 42% difference between the satisfaction and importance values)
• Q40 – adequate availability of computers (39% satisfaction and extremely high importance rate of 85%, there is an extremely high difference of 46% between the satisfaction and importance values).

4.2.4 Admissions and registrations

The respondents are in general not very satisfied with regard to the institution’s admission and registration arrangements of the institution. The respondents are satisfied with the easy to follow admission procedures of the institution (Q44 – 60% satisfaction) and the clear and accurate information about the registration procedures (Q45 – 60% satisfaction). They are dissatisfied with the following issues with regard to admissions and registrations (difference of values between satisfaction and importance rates of each question is very high – between 30% and 40%):

• Q46 – quick and convenient registration and re-registration procedures (40% satisfaction and 84% importance)
• Q47 – an effective system for resolving administrative issues (45% satisfaction and 81% importance)
• Q48 – an efficient application process for residence accommodation (41% satisfaction and 79% importance)

4.2.5 Finance and Fees
Although the respondents are in general satisfied with the issues related to finance and fees, the satisfaction values and importance values per issue is high which is an indication that the respondents are convinced that there is room for improvement for these services. Q53 (information available about various types of bursaries) has the lowest satisfaction rate with an extremely high importance rate of 82%.

### 4.2.6 Student services and support
The respondents are very satisfied with the academic support that they receive from their lecturers, this include tutoring and consultation sessions (Q54 – 70% satisfaction and 89% importance), English language skills support on campus (Q56 - 69% satisfaction and a very high importance rate of 84%), promotion of health education e.g. HIV/AIDS, sexuality transmitted diseases, drugs, etc (Q63 – 74% satisfaction and 85% importance), health services/ clinic services (Q64 – 71% satisfaction and 88% importance) and the campus bookshop (Q65 – 72% satisfaction and 88% importance). The issues that receive a relatively low satisfaction rate with a high importance rate are peer mentoring in specific areas (Q55), study skill support (Q57), career counselling (Q58), a database for potential employment (Q60) and transparency of the SRC about it’s activities (Q71).

4.2.7 Most important issues: student satisfaction survey

The student satisfaction survey indicates the following dimensions as the most importance issues that the respondents evaluated (importance of ≥85):

- The programme in which you are enrolled closely links theory and practice (Q4)
- The programme has useful and relevant study guides (Q5)
- The programme clearly states assessment requirements in all subjects (Q9)
- The programme has committed permanent teaching staff (Q12)
- The programme develops the ability to successfully solve problems in this field of study (Q14)
- The programme develops competence in suing appropriate modern technology (Q17)
- Communication between academic departments and their students (Q24)
- The university provides equipped lecture halls (Q27)
- Classes comfortably accommodate the students (Q29)
• Adequate numbers of computers for the number of students (Q30)
• Information desk services in the library (Q31)
• Library which can accommodate the number of students (Q33)
• Photocopiers or a photocopy service (Q34)
• Convenient library times (Q35)
• Adequate maintenance of computer facilities (Q39)
• Adequate availability of printers (Q40)
• Adequate access to internet (Q41)
• Adequate study space and desks (Q42)
• Easy to obtain information on admission procedures (Q43)
• Clear and accurate information about registration procedure (Q45)

4.3 Performance gaps

The respondents rated the importance per item on the questionnaires, as well as their level of satisfaction. The difference between the satisfaction rating per item and the importance rating per item constitutes the performance gap for an item. The performance gap is a critical factor and indicator for the manager to initiate remedial actions. The larger the performance gap the greater the concern should be for managers on all levels to remedy a specific deficiency. The issues of significance (with reference to e.g. large performance gap items) can be supported by focus group interviews or, alternatively, a request can be made to the QPU to conduct a review of a particular service to reveal the underlying factors and to ensure the enhancement of the core business.

4.3.1 Staff survey

The QPU regards a satisfaction rate of 70% as an indication of satisfaction and 80% and higher as a very high satisfaction value. The QPU regards a performance gap of ≤15% (satisfaction value per item subtracted from importance per item) as an additional indicator to satisfaction for a respective item. According to Noel-Levitz, the larger the performance gap for an item (high importance and relatively low satisfaction) the greater the concern should be to enhance the quality of the service rendered. The argument should therefore be that a small performance gap should be an indication of satisfaction, provided that the satisfaction value of an item is ≥70%.

4.3.1.1 Issues with a high satisfaction rate
The following issues with regard to the staff survey have a small performance gap and a high satisfaction value (≥70%):

a) Role and development
   • Amount of work you do at the VUT (Q7)
   • Opportunities for you as a staff member to develop (Q12)

b) Management and communication
   • Working relationship with your line manager (Q21 – the performance gap for this item is extremely low – 4%, the item has a very high satisfaction rate of 82% and a very high importance rate of 86%)
     c) Communication with line managers
        Communication with your line manager (Q22 – the performance gap for this item is low – 6%, the item has a very high satisfaction rate of 80% and a very high importance rate of 86%)
   d) Support from line managers
   • Support you receive from your line manager (Q23 – the performance gap for this item is low – 7%, the item has a relatively high satisfaction rate of 79% and a high importance rate of 86%)
   e) Approachability of line managers
   • Approachability of your line manager (Q24 – the performance gap for this item is 8%, the item has a relatively high satisfaction rate of 81% and a high importance rate of 89%)
   f) Consultation by line managers
   • Extent to which you are consulted by your line manager regarding matters that affect you (Q25 – the performance gap for this item is 9%, the item has a satisfaction rate of 70% and a very high importance rate of 89%)
   g) Line managers take subordinates' views on board
   • Extent to which your line manager takes on board your views (Q26 – the performance gap is 10%, the item has a satisfaction rate of 75% and a high importance rate of 85%)
  h) Communication with other staff
  • Communication with other staff at your level (Q27 – the performance gap for this item is only 7%, the item has a relatively high satisfaction rate of 78% and a high importance rate of 85%)

i) Information technology
   • Your access to a computer and printer (Q50 – the performance gap for this item is 10%, the item has a relatively high satisfaction rate of 75% and a very high importance rate of 85%)
   j) Access to email
   • Your access to email (Q51 – the performance gap for this item is 8%, the item has a high satisfaction rate of 78% and an importance rate of 86%)
   k) Access to inter/intranet
   • Your access to inter/intranet (Q52 – the performance gap for this item is 15%, the satisfaction rate is 70% and the importance rate is 85%)
4.3.1.2 Performance gaps of staff satisfaction survey

The following items have large performance gaps and are viewed by the QPU as significant (≥20% gap between satisfaction rate and importance per item):

a) Conditions of employment
   - Flexibility of working hours (Q4)
   - Opportunities for promotion (Q5 – this issue has a performance gap of 35%)
   - Openness of selection process for promotion (Q6)

b) The role of the respondents as academic staff
   - Level of motivation of colleagues in your department (Q11)
   - Your workload permits for participation in research (Q14)
   - Strategic planning (Q15)
   - Openness and transparency of strategic management decisions at the VUT (Q17)
   - Extent to which you are informed about strategic decisions (Q18)
   - Time to reflect on course content and delivery (Q29)
   - Time available for research (Q31)
   - Level of student attendance (Q32)
   - Level of student motivation (Q33)
   - Extent to which students are self-directed learners (Q34 – this item has a performance gap of 37%)
   - Amount of lecture rooms available (Q39)
   - Efficiency of lecture rooms (Q40 – this item has a performance gap of 30%)

c) Information Technology
   - Up-to-datedness of hardware (Q53)
   - Student access to internet (Q54 – this item has a performance gap of 30%)
   - Student access to printers (Q55 – this item has a performance gap of 34%)
   - IT Technical support (Q56 – this item has a performance gap of 30%)
   - Reliability of the IT system (Q57 – this item has a performance gap of 32%)

d) Administration and academic support services
   - Human Resource Management (Q58)
   - Finance (Q59)
   - Staff counselling (Q60)
   - Security (Q62)
   - Landscaping and gardening (Q63)
   - Marketing (Q69)
   - Skills development (Q73)

4.3.2 Students survey

4.3.2.1 Issues with a high satisfaction rate
The following issues with regard to the staff survey have a small performance gap and a high satisfaction value (≥70%):

a) **Programme related items**
- The programme in which you are enrolled closely links theory and practice (Q4)
- The programme has useful and relevant study guides (Q5)
- The programme clearly states assessment requirements in all subjects (Q9, this item has a satisfaction rate of 75% and importance rate of 85%, the performance gap is relatively small - 10%)
- The programme develops the ability to work as a team members (Q18)

b) **Student services and support**
- Promotion of health education e.g. HIV/AIDS, sexually transmitted diseases, drugs, smoking, etc. (Q63 – this item has a satisfaction rate of 75% and importance of 85%, the performance gap is relatively small, 10%)
- Health services/ Clinic (Q64 – satisfaction and importance relatively high, the performance gap is 17%)
- Campus bookshop (Q72 – satisfaction and importance relatively high, the performance gap is 16%)

4.3.2.2 **Performance gaps of student satisfaction survey**

The following items have large performance gaps and are viewed by the QPU as significant (≥20% gap between satisfaction rate and importance per item):

a) **Programme related issues**
- Programme has a satisfactory orientation for students (Q3)
- Programmes employs interesting and appropriate teaching and learning methods (Q6)
- Programmes have a workload which is manageable in the time available (Q7)
- Programmes have majority of staff who regularly consults students about the programmes quality (Q8)

b) **Institutional culture**
- Communication between top management and students (Q23)
- Communication between academic departments and their students (Q24 – this item has a performance gap of 30%)
- Communication between administration departments and students (Q25)

c) **Teaching and learning facilities and support**
- Well equipped laboratories (Q28)
- Classes which comfortably accommodate the students (Q29)
• Adequate numbers of computers for the number of students (Q30 – this item has a performance gap of 38%)
• A reserve collection in the library for my field of study (Q32)
• Library which can accommodate the number of students (Q33 – this item has a performance gap of 38%)
• Current stock in library (Q37)
• Support in computer centres (Q38 – this item has a very high performance gap of 39%)
• Adequate availability of printers (Q40 – this item has a performance gap of 35%)
• Adequate access to the internet (Q41 – this item has a performance gap of 35%)
• Adequate study space and desks (Q42 – this item has a performance gap of 38%)

d) Admission and registration
• Easy to obtain information on admission procedures (Q43)
• Easy to follow admission procedures (Q44)
• Clear and accurate information about registration procedures (Q45)
• Quick and convenient registration and re-registration procedures (Q46 – this item has an extremely high performance gap of 44%)
• An effective system for resolving administrative issues (Q47 – this item has a performance gap of 37%)
• An efficient application process for residence accommodation (Q48 – this item has a performance gap of 30%)
• Fairness of the continuation of study policy

e) Finance and fees
• Current and accurate information on the programme fee structure (Q51)
• Information about a range of financial aid schemes (Q52)
• Information about various types of bursaries (Q53 – this item has a performance gap of 32%)

f) Student services and support
• Peer mentoring in specific subject areas (Q55)
• Study skills support (Q57)
• Career counselling (Q58)
• A database for potential employment (Q60)
• Adequate services if I have a disability (Q61)
• Adequately satisfactory maintained accommodation (Q62 – this item has a performance gap of 32%)
• Sufficient clean catering facilities (Q67)
• Affordable range of food on campus (Q68 – this item has an extremely high performance gap of 40%)
• A professional and accountable SRC which represents all students (Q70)
• Transparency of the SRC about its activities (Q71)
5. **REMEDIAL ACTIONS**

The satisfaction survey findings identified the need for enhancements in a variety of areas. The items with the largest performance gaps with regard to the staff survey range from conditions of employment, the profile of students, the learning environment and Information Technology.

The QPU recommends that remedial actions should be taken for the improvement of the following issues in this regard:

- Staff members are dissatisfied with the current situation with regard to opportunities for promotion at the VUT.
- The staff is of the opinion that the majority of students are not self-directed learners.
- The institution should enhance the quality and efficiency of lecture rooms.
- Students should have better access to internet.
- The institution should find ways to enhance the current IT support services.
- The IT system of the institution is a grave concern: The institution should ensure the reliability of the system.

The items with the largest performance gaps for student survey range from conditions with regard to the institutional culture, teaching and learning, admissions and registrations, finance and fees and student services and support. The QPU recommends that remedial actions should be taken for the improvement of the following issues in this regard:

- The communication between academic departments and students should be more efficient.
- The institution should ensure that there is an adequate number of computers available for the number of users (students).
- The institution should ensure that the library can accommodate comfortably the number of users (students).
- There should be sufficient support available for students in the computer centres.
- The number of computers is not adequate for the number of users (students). The institution should ensure adequate availability of computers for its students.
- The students complain about the accessibility to the internet facilities.
- The students are dissatisfied with the registration and re-registration procedures of the VUT. The institution should ensure that effective and efficient services are available that will ensure quick and convenient services.
- The students are dissatisfied with the current system for resolving administrative issues and problems.
• The institution should ensure that there is a more efficient application process for residence accommodation in place.
• Students should receive more information with regard to the various types of student bursaries that are available.
• The students are dissatisfied with the maintenance services at the residences.
• The institution should ensure that there is a better range of food for students available. The food should also be more affordable for the students.

6. CONCLUSION

In conclusion, the staff members are satisfied with many issues with regard to their conditions of employment and the way that they are treated as academics by management. They appreciate the degree of flexible working hours that they have and are in general satisfied with their contractual terms and conditions. There seems to be a contradiction in their indication that they are satisfied with their amount of work and the general complaint that they cannot participate in research due to their workload.

The staff members appreciate the opportunities that they have to develop as academics and to utilise their own initiatives. They have very good relationships with their line managers and there is in general effective communication between the line managers and staff. They also value the degree of support and acknowledgement that they receive from their line managers. They are in general very satisfied with the access that they have to printers, computers, intranet and internet facilities.

With regard to the student survey, the majority of participants are satisfied with the programme-related issues that were measured, i.e. programme theory links with practice, clearly stated assessment requirements, opportunities for students to work as team members, etc. They are also satisfied with the convenient library hours, the availability of the information desk in the library and their access to the reserved collection. The students are satisfied with the current and accurate information on programme fees and structures as well as their financial liabilities and the information available with regard to financial aid schemes. They appreciate the degree of academic support that they receive which includes consultation sessions with their lecturers and English-language support initiatives. They value the institution’s initiatives with regard to health education and the availability of health services on campus.

The staff satisfaction reveals dissatisfaction of the staff with regard to the induction programmes for newly appointed staff members. They are also not satisfied with the opportunities that are available for promotion. The staff indicate that there is a communication gap between them and top management with reference to information that is not disseminated with regard to issues such as strategic plans and the outcome of decision-making processes. In general they are dissatisfied with the academic environment in which they operate with special reference to the infrastructure. This
includes the availability of suitable lecture rooms, the conditions and the cleanliness of the rooms and the fact that the laboratories are generally not well equipped, the absence of a reliable IT system, access of students to email and printers, landscaping and gardening and restaurant facilities. The staff members are of the opinion that the majority of students that enrolled at the VUT have low levels of self-motivation. They are regarded as “not self-directed” learners. The staff members are dissatisfied with the pressure that they receive from the institution not to fail students. They are also not satisfied with the administrative support that they receive. Other issues of dissatisfaction are effective transport facilities and the decentralisation of short courses.

The students are of the opinion that some of the contract and part-time staff members of the institution are not always committed to their jobs. They are dissatisfied with the degree of effective communication that exists between top management and students, between administration and students and between academic departments and the students. They are not satisfied with the institution’s support to them with regard to access to intranet and internet facilities, and the availability of computers and printers. The students are dissatisfied with the support that they receive in the computer centres and the provision of maintenance for the institution’s computers. They are not satisfied with the support that they receive from peer mentors in certain programmes, in career counselling as well as in study skills support. They also need more sufficient information with regard to various types of bursaries that are available for them.

The students are not satisfied with the institution’s registration and admission services which include resident registration and admission procedures and processes (e.g. residence applications). The registration and re-registration processes are very slow and inconvenient for the institution’s primary customers. They complain that the registration and admission staff is not always capable to solve problems that occur.

The key focus of this satisfaction survey should be on the implementation of appropriate remedial actions in order to improve services that are rendered to staff and students of the institution and to ensure the enhancement of the institution’s core business. The data that were gathered by means of this survey point toward the development of remedial action plans including decision-making and resource allocation processes of all levels of the institution, followed by the continuous monitoring of the implementation of the initiatives. The plans should be specific and should identify specific tasks to be accomplished, as well as the identification of individuals and teams (e.g. Quality Improvement Teams, committees, etc.) that will be responsible for task completion. Specific deadlines are imperative. It is also imperative that the loop of the survey should be completed by giving feedback to the staff and students with regard to the findings of the survey, and the remedial action steps that are in place, in order to address the identified deficiencies or areas of dissatisfaction.

The purpose of this Survey was to investigate the nature of student and staff satisfaction and dissatisfaction with regard to the academic and academic support services at the VUT. This information should be viewed as (quantitative) management information and should be utilised for the purpose of planning (including resource allocation) on all levels of the institution. Managers are welcome to assign the QPU to conduct focus group interviews with staff and students in order to collect in-depth information for gaining a better understanding of certain problems that might
contribute to the dissatisfaction of staff or students’ needs and expectations. Focus group interviews can also be utilised as qualitative information to verify the outcome of the surveys and to generate information that will enhance the quality of the core business of the institution.

DR HJ BRITS
DIRECTOR: QUALITY PROMOTION UNIT
January 2011

APPENDIXES : SATISFACTION SURVEYS
Appendix A: Student Satisfaction Survey Questionnaire
Dear Student,

The Quality Promotion Unit (QPU) thank you for your willingness to complete this Satisfaction Questionnaire and for the contribution in the enhancement of quality. Please note that your anonymity and confidentiality remains assured.

INSTRUCTIONS:
1. Use only an HB pencil or blue or black pen.
2. Darken the circle completely.
3. Do not make any stray marks on this form.
4. Do not tear or fold this form.

NB
CORRECT MARK

ININCORRECT MARKS

CURRENT LEVEL OF STUDY
- National Diploma
- Bachelor’s Degree in Technology
- Master’s Degree in Technology
- Doctor’s Degree in Technology
- Other

YOUR CURRENT ACADEMIC YEAR OF STUDY:
- Year 1
- Year 2
- Year 3
- Year 4
- Year 5
- Year 6

CAMPUS
- Vanderbijlpark
- Kempton Park
- Secunda
- Upington
- Klerksdorp
- Other

ENROLLMENT
- Full time
- Part time

YEAR OF FIRST REGISTRATION
- 18
- 19
- 20
- 21
- 22
- 23
- 24+

HOME LANGUAGE (for statistical purpose only)
- Afrikaans
- Setswana
- English
- Sesotho
- IsiXhosa
- SeSwati
- Xitsonga
- IsiZulu
- Siswati
- Se Tamil
- IsiNdebele
- Other

GENDER
- Male
- Female

Please rate the extent to which you are satisfied with the following aspects (first column) and then rate how important they are to your experience as a student.

Scale: 1 Should be regarded as very dissatisfied and 4 as very satisfied.
1 Should be used for not important and 4 as very important
If a question is not applicable please indicate NA

<table>
<thead>
<tr>
<th>QUESTIONS</th>
<th>Colour the circle that best reflects your view</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Is meeting the expectations I had prior to my enrolment</td>
<td>SATISFACTION</td>
</tr>
<tr>
<td>2. Is accurately described in the VUT promotional brochures</td>
<td></td>
</tr>
<tr>
<td>3. Has a satisfactory orientation for students</td>
<td></td>
</tr>
<tr>
<td>4. Closely links theory and practice</td>
<td></td>
</tr>
<tr>
<td>5. Has useful and relevant study guides</td>
<td></td>
</tr>
<tr>
<td>6. Employs interesting and appropriate teaching and learning methods</td>
<td></td>
</tr>
<tr>
<td>7. Has a workload which is manageable in the time available</td>
<td></td>
</tr>
<tr>
<td>8. Has majority of staff who regularly consults students about the programmes quality</td>
<td></td>
</tr>
<tr>
<td>9. Clearly states assessment requirements in all subjects</td>
<td></td>
</tr>
<tr>
<td>10. Applies and provides relevant fair assessments</td>
<td></td>
</tr>
<tr>
<td>11. Provides timely and constructive feedback on learning after assessment</td>
<td></td>
</tr>
<tr>
<td>12. Has committed permanent teaching staff</td>
<td></td>
</tr>
<tr>
<td>13. Has committed contract, part-time teaching staff</td>
<td></td>
</tr>
<tr>
<td>14. Develops the ability to successfully solve problems in this field of study</td>
<td></td>
</tr>
<tr>
<td>15. Fosters up-to-date knowledge and skills needed by industry and commerce</td>
<td></td>
</tr>
<tr>
<td>16. Develops interpersonal communication skills</td>
<td></td>
</tr>
<tr>
<td>17. Develops competence in using appropriate modern technology</td>
<td></td>
</tr>
<tr>
<td>18. Develops the ability to work as a team member</td>
<td></td>
</tr>
</tbody>
</table>

INSTITUTIONAL CULTURE - The institution promotes:
19. Ethical values like honesty and integrity
20. A respect for alternative viewpoints
21. Non-sexist attitudes
22. Respect for culturally diverse people
23. Communication between Top Management and Students
24. Communication between Academic Departments and their students
25. Communication between Administration Departments and students
26. Support in cultural activities

Appendix A (Continue)
# Appendix B: Staff Satisfaction Survey Questionnaire

<table>
<thead>
<tr>
<th>QUESTIONS</th>
<th>SATISFACTION</th>
<th>IMPORTANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TEACHING AND LEARNING FACILITIES AND SUPPORT - The University provides:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27 Well equipped lecture halls</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>28 Well equipped laboratories</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>29 Classes which comfortably accommodate the students</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>30 Adequate numbers of computers for the number of students</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>31 Information Desk Services in the library</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>32 A Reserve Collection in the library for my field of study</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>33 Library which can accommodate the number of students</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>34 Photocopyers or a photocopy service</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>35 Convenient library times</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>36 Available library staff</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>37 Current stock in the libraries</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>38 Support in computer centres</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>39 Adequate maintenance of computer facilities</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>40 Adequate availability of printers</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>41 Adequate access to the Internet</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>42 Adequate study space and desks</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>ADMISSIONS AND REGISTRATIONS - The admission and registration processes provide:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43 Easy to obtain information on admission procedures</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>44 Easy to follow admission procedures</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>45 Clear and accurate information about registration procedure</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>46 Quick and convenient registration and re-registration procedure</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>47 An effective system for resolving administrative issues</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>48 An efficient application process for residence accommodation</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>49 Fairness of continuation of studies policy</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>FINANCE AND FEES - The University provides:</strong></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>50 Current and accurate information on the programme fee structure</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>51 Current and accurate information about my financial liability</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>52 Information about a range of financial aid schemes</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>53 Information about various types of bursaries</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>STUDENT SERVICES AND SUPPORT - The following are accessible and available when I need them:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54 Academic support by lecturers (e.g. tutoring, consultations)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>55 Peer mentoring in specific subject areas</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>56 English language skills support on my campus</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>57 Study-skills support</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>58 Career Counseling</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>59 Personal Counselling</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>60 A database for potential employment</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>61 Adequate services if I have a disability</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>62 Adequately satisfactory maintained accommodation</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>63 Promotion of health education e.g. HIV/AIDS, sexually transmitted diseases, drugs, smoking</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>64 Health service / Clinic</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>65 A campus Bookshop</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>66 Sport facilities</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>67 Sufficient clean catering facilities</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>68 Affordable range of food on campus</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>69 Security Services</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>70 A professional and accountable SRC which represents all students</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>71 Transparency of the SRC about its activities</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

If you have any other comments regarding any of the above, please print them here:
Appendix B (Continue)
| QUESTIONS |
|----------------|----------------|
| ACAD EMBNV | SATISFACTION | IMPORTANT |
| A. | | |
| 29 | Authority you have over course content | | |
| 29 | Time to reflect on course content and delivery | | |
| 30 | Time available to support students | | |
| 31 | Time available for research | | |
| 32 | Level of student attendance | | |
| 33 | Level of student motivation | | |
| 34 | Extent to which students are self-directed learners | | |
| 35 | Pressure on lecturers not to fail students | | |
| 36 | Lecturer: student ratio in your department | | |
| 37 | Marking load | | |
| 38 | Administrative support to lecturers | | |
| 39 | Amount of lecture rooms available | | |
| 40 | Efficiency of lecture rooms | | |
| 41 | Conditions and cleanliness of lecture rooms | | |
| 42 | Lecturer offices available | | |
| 43 | Research culture and support | | |
| 44 | Adequate incentives for researchers | | |
| 45 | Opportunities to improve your academic qualifications | | |
| 46 | Adequate incentives for staff to improve their qualifications | | |
| 47 | Laboratories are adequate and well equipped | | |
| 48 | Impact of continuous assessment | | |
| 49 | Adequate support for the implementation of continuous assessment | | |
| INFORMATION TECHNOLOGY | SATISFACTION | IMPORTANT |
| B. | | |
| 50 | Your access to a computer and printer | | |
| 51 | Your access to e-mail | | |
| 52 | Your access to Internet / Internet | | |
| 53 | Usefulness of hardware | | |
| 54 | Student access to Internet | | |
| 55 | Student access to printers | | |
| 56 | IT Technical support | | |
| 57 | Reliability of IT system | | |

**ADMINISTRATION / ACADEMIC SUPPORT and GENERAL SERVICES**

(Only if applicable)

| QUESTIONS |
|----------------|----------------|
| C. | SATISFACTION | IMPORTANT |
| 58 | Human Resources Management | | |
| 59 | Finance | | |
| 60 | Staff counselling | | |
| 61 | Transport | | |
| 62 | Security | | |
| 63 | Landscaping and gardening | | |
| 64 | Printers | | |
| 65 | Bookshop | | |
| 66 | Zinto Coffee Shop | | |
| 67 | Short courses | | |
| 68 | Examinations | | |
| 69 | Marketing | | |
| 70 | Library | | |
| 71 | Al Fresco Restaurant | | |
| 72 | Community Services | | |
| 73 | Skills Development | | |
| 74 | Directorate Institutional Development | | |

**IF YOU HAVE ANY OTHER COMMENTS REGARDING ANY OF THE ABOVE, PLEASE PRINT THEM HERE:**

---

161
APPENDIX C

FACULTY APPLIED AND COMPUTER SCIENCES

STAFF SATISFACTION SURVEY

CONDITIONS OF EMPLOYMENT AT VUT

The respondents are satisfied with the flexibility of working hours at the VUT and their contractual terms and conditions. They are dissatisfied with their conditions of employment that include the fact that they exceed their contracted hours, their opportunities for promotion and the openness of selection processes for promotion at the VUT.
The respondents are satisfied with their amount of work that they do at the VUT, with their opportunities to use their own initiative, extent to which their professional skills and capabilities are recognized, opportunities to share good practice within the VUT and opportunities that they have to develop as academic staff members.

They are dissatisfied with the level of motivation of colleagues in their departments, and their workload that hampers their participation in further studies and in research. There seems to be a contradiction in the findings of Q7 (amount of work you do at the VUT) and Q13 and Q14 (your workload permits participation in further study – Q13, and in participation in research – Q14).
MANAGEMENT AND COMMUNICATION

The respondents are in general dissatisfied with all issues with regard to the evaluation of management and communication at the VUT. The highest value for this section is the approachability of department/faculty management (49% satisfaction and 62% importance). They are very dissatisfied with the openness and transparency of strategic management decisions at the institution (36% satisfaction). They are also dissatisfied with the communication of the strategic plans of the VUT (Q15), the soundness of financial management (Q16) and the extent to which they are informed about strategic extent to which department/faculty management ensures equal opportunities to staff.
The respondents are satisfied with the autonomy that they have over course content, time available to support students and opportunities to improve their academic qualifications. They are in general dissatisfied with the issues that were evaluated with regard to the academic environment. The issues that receive very low evaluation ratings (≤ 40% satisfaction value per respective question) are time that is available for research (Q31), the extent to which students are self-directed learners (Q34), lecturer:student ratios (Q36), marking load (Q37), conditions and cleanliness of lecture rooms (Q41), availability of lecture offices (Q42), research culture and support (Q43), laboratories are inadequate and not well equipped (Q47) and the adequacy of support for the implementation of continuous assessment (Q49).
The respondents are satisfied with their access to computers and printers at the institution. They are dissatisfied with student access to internet (Q54), IT Technical support (Q56) and the reliability of the IT system (Q57). The issue that receives the lowest value is Q55 on student access to printers (≤ 30% satisfaction rate).
The respondents are in general dissatisfied with the administration and academic support services of the institution (satisfaction values for all statements ≤ 46% satisfaction). It should also be mentioned that the importance value for each question in this section was also relatively low (≤ 61%). The issues that were evaluated with extremely low satisfaction rates are transport (Q61) and Al Fresco Restaurant (Q71). The following questions receive values lower than 40%:

Q60 – staff counseling
Q62 – security
Q63 – landscaping and gardening
Q67 – library
Q69 – marketing
Q72 – community service
Appendix D:

FACULTY MANAGEMENT SCIENCES

STAFF SATISFACTION SURVEY

CONDITIONS OF EMPLOYMENT AT VUT

The respondents are as employees very satisfied with the flexibility of working hours (Q3 – 78% satisfaction and 82% importance) and with their contractual terms and conditions (Q1 – 61% satisfaction and 60% importance). They are dissatisfied with the following issues with regard to their conditions of employment:

- Exceeding of contracted hours (Q2 – 40% satisfaction and 50% importance)
- Induction programmes for new staff members (Q4 – 45% satisfaction and 80% importance).
- Opportunities for promotion (Q5 – 41% satisfaction and 82% importance)
- Openness of selection process for promotion (Q6 – 40% satisfaction and 79% importance).
Of significance are the poor performance gaps (issues with a relatively low satisfaction values with high importance values) for questions 4 (induction programmes for new staff), 5 (opportunities for promotion) and 6 (openness of selection processes). These dimensions have satisfaction values of \( \leq 45 \) satisfaction values and \( \geq 80\% \) importance values.

**YOUR JOB ROLE AT VUT**

The participants are in general satisfied with their working conditions except for the rating of lower satisfaction values and high importance values for Q13 (workload permits participation in further study) and Q14 (workload permits for participation in research). They are very satisfied with their amount of work (Q7), opportunities that they have as staff members to develop (Q12 – 75% satisfaction and 82% importance).
The satisfaction response of the respondents on questions with regard to management and communication was rated per question relatively high. The only issue that the respondents are dissatisfied with is the communication of management with regard to the institution's strategic plan (Q15 – 48% satisfaction and 78% importance). The respondents are very satisfied with their working relationship with their line managers (89% satisfaction and 91% importance), communication with their line manager (Q22 – 83% and 88% importance), approachability of their line manager (88% satisfaction and 89% importance) and the extent to which their line manager takes on board their views (81% satisfaction and 85% importance).
With regard to the academic environment, the respondents are very satisfied with opportunities that they have to improve their academic qualifications (Q45 – 70% satisfaction and 78% importance). They are dissatisfied with the following conditions:

- Time available for research (Q31 – 45% satisfaction and 68% importance)
- Level of student attendance (Q32 – 39% satisfaction and 65% importance)
- Extent to which students are self-directed learners (Q34 – 39% satisfaction and 68% importance)
- Marking load (45% satisfaction and 62% importance)
- Adequate incentives for researchers (Q44 – 46% satisfaction and 65% importance).
The following questions receive relative low satisfaction values (> 50% and < 56%):

- Q 33 – level of student motivation
- Q40 – efficiency of lecture rooms
- Q41 – conditions and cleanliness of lecture rooms
- Q42 – lecturer offices available
- Q48 – impact of continuous assessment
- Q49 – adequate support for the implementation of continuous assessment.

**INFORMATION TECHNOLOGY**

The respondents are dissatisfied with student access to the internet/intranet (Q54 – 50% satisfaction and 81% importance), student access to printers (Q55 – 40% satisfaction and as high as 80% importance) and the reliability of the IT system (Q57 – 52% satisfaction and a high importance value of 84%).
The respondents rated the questions on administration, academic support and general services very low. Issues with a relatively low satisfaction value are the respondents’ access to e-mail (Q58 - 51% satisfaction) and the availability of printers (Q54 – 68%). The following questions have significant low satisfaction values:

- Q60 – staff counseling services (30%)
- Q61 – transport facilities (45%)
- Q63 – landscaping and gardening of the campus (50%)
- Q68 – examination services (44% with a high importance rate of 75%)
- Q69 – marketing (49% with a relatively high importance rate of 70%)
- Q71 – restaurant (41%)
- Q72 – community services (39%)
The respondents are in general satisfied with the conditions of employment at the VUT except for their opportunities for promotion (Q5 – 49% satisfaction) and the openness of the selection process for promotion (Q6 – 45% satisfaction). They are very satisfied with their flexible working hours (Q3 – 82% satisfaction and 90% importance).
The respondents are very satisfied with their amount of work (Q7 – 92% satisfaction and 94% importance), opportunities that they have to use their own initiative (Q9 – 92% satisfaction and 96% importance) and opportunities for them to develop as staff members (Q12 – 84% satisfaction and 98% importance). Other items that have relatively high satisfaction values are the extent to which the staff members' professional skills and capabilities are recognized (Q8 – 78% satisfaction and 92% importance), level of motivation of colleagues (70% satisfaction and 98% importance) and the fact that their workload permits them to take part in research (Q14 – 70% satisfaction and 84% importance).
The respondents are in general satisfied with the management and communication of the institution. Only two questions have relatively low satisfaction rates i.e. Q15 on the communication of the strategic plan of the VUT (54% satisfaction with a high importance value of 90%) and Q17 with regard to openness and transparency of strategic management decisions at the institution (54% satisfaction and 82% importance). The respondents are very satisfied with the following issues they all have a very high importance rate (> 95%):

- Working relationship with your line manager (Q21)
- Communication with your line manager (Q22)
- Support you receive from your line manager (Q23)
- Approachability of your line manager (Q24)
- Extent to which you are consulted by your line manager regarding matters that affect you (Q25).
- Communication with other staff at your level (98).
The issues that have a relatively low satisfaction value with a high importance value are:

- Q31 – Time available for research (54% satisfaction and a high importance rate of 85%)
- Q35 – Pressure on lecturers not to fail students (50% satisfaction and 78% importance)
- Q43 – Research culture and support (50% satisfaction and 79% importance)
- Q48 – Impact of continuous assessment (52% satisfaction and 72% importance)

The respondents are dissatisfied with:

- Q33 – Level of student motivation (45% satisfaction and 89% importance)
- Q34 – Extent to which students are self-directed learners (40% satisfaction and 88% importance)
- Q44 – Adequate incentives for researchers (45% satisfaction and 74% importance)
- Q49 – Adequate support for the implementation of continuous assessment (44% satisfaction and 61% importance).
The respondents are very satisfied with the fact that they have access to computers and printers (Q50 – 98% satisfaction and 97% importance), access to email (Q51 – 85% satisfaction and 98% importance) and access to internet/intranet (Q52 – 85% satisfaction and 88% importance). They are dissatisfied with the students’ access to internet (Q54 – 44% satisfaction) and their access to printers (Q55 – 40% satisfaction).
Issues with regard to the institution’s administration and academic support as well as general services that have relatively low values are transport services (Q61 – 50% satisfaction) and marketing (Q69 – 52% satisfaction). The respondents are dissatisfied with the following:

- Staff counseling (Q60 – 40% satisfaction)
- Community services (Q72 – 44% satisfaction)
- Skills development (Q73 – 46% satisfaction)
The respondents are very dissatisfied with the induction programmes that are conducted for staff members (Q4 – 45% satisfaction and a relatively high importance rate of 75%), opportunities available for promotion (Q5 – 40% satisfaction and a high importance rate of 80%) and openness of the selection processes for promotion at the VUT (Q6 – 39% satisfaction and a very high importance rate of 80%).
The respondents are very satisfied with their amount of work that they do at the VUT (Q7 - 70% satisfaction and 85% importance). They are also very satisfied with their opportunities to use their own initiative (Q9 - 70% satisfaction and 85% importance). There seems to be a contradiction between the values of Q7 in comparison with the values of Q13 and Q14. The respondents indicate a low 45% satisfaction rate for their participation in research (Q14) and further studies (Q13 - 50% satisfaction rate) as a result of their workload.
The respondents are very satisfied (≥ 74% satisfaction and ≥ 78% importance) with their working relationship with their line managers (Q21), their communication with their line managers (Q22), the support that they receive from their line managers (Q23) the approachability of their line managers (Q24) and the communication with other staff members on their level (Q27). They are not satisfied with the communication and management of the strategic planning of the institution (Q15 - 49% satisfaction and 82% importance), the soundness of the financial management of the VUT (Q16 - 49% satisfaction and 76% importance) and the openness and transparency of strategic management decisions at the VUT (50% satisfaction and a very high 85% importance).
Academic Environment

The respondents are satisfied with the autonomy that they have over course content (Q28 - 60% satisfaction and 76% importance) as well as the opportunities that the institution provides to improve their academic qualifications (Q45 - 60% satisfaction and 74% importance). They are dissatisfied with the following services/issues (ratings between 40% satisfaction and 50% satisfaction):

- Q33 – the level of student motivation
- Q35 – pressure on lecturers not to fail students
- Q38 – administrative support to lecturers
- Q39 – amount of lecture rooms available
- Q42 – lecturer office not available
- Q47 – laboratories are inadequate and not well equipped
- Q49 – adequate support for the implementation of continuous assessment

The respondents are very dissatisfied with time available for conducting research (Q31), this issue has a satisfaction rate of 38% and an importance rate of 70%. They are also very dissatisfied with the extent to which students are self-directed learners (Q34 – 39% satisfaction and 77% importance), efficiency of lecture rooms (Q40 - 35% satisfaction and 78% importance), conditions and cleanliness of lecture rooms (Q41 - 34% satisfaction and 75% importance).
The respondents are very satisfied with the access that they have to computers and printers (Q50), with their access to email (Q51) and their access to inter- and intranet (Q52). They are dissatisfied with the following issues, each has a very high importance rate: Q54 – students’ access to internet (40% satisfaction and 79% importance), Q55 – students’ access to printers (39% satisfaction and 80% importance).
The respondents are satisfied with the service rendered by the Examinations Office (Q68) and the library. They are dissatisfied with the security services of the campus (Q62). The respondents are very dissatisfied with the arrangements for staff counselling (Q60 – 38% satisfaction and 68% importance), transport (Q61 – 38% satisfaction and 65% importance) as well as landscaping and gardening (Q63 – 38% satisfaction and 75% importance), marketing (38% satisfaction and 69% importance).
Questions 8 and 13 are of significant value with relatively low percentages for satisfaction and high values for importance. The participants are of the opinion that the majority of staff do not consult the students about the quality of the programmes on a regular basis (Q 8). They are also of the opinion that the part-time and contract staff members are not committed (Q13). The students are of the opinion that the programme develops the ability for them to work as team members (Q18), that the assessment requirements are clearly stated (Q9) and that the study guides are useful and relevant (Q5).
The participants are of the opinion that there is poor communication between them and top management (Q23), also with the academic departments (Q24) and the administrative departments (Q25). They regarded communication with all three structures of the institution as very important (above 90%).
The participants indicate that they are not satisfied with the following teaching and learning facilities and support that are rendered to them as the primary “clients”:

- The laboratories are not well equipped (Q28)
- Adequate numbers of computers for the number of students/users (Q30) – this question has a high importance rate of 100% with a significant low satisfaction rate (43%)
- Inadequate support in computer centres (Q38) – a response with a high importance and low satisfaction rate
- Inadequate availability of printers (Q40) – a response with a high importance and low satisfaction rate
- Inadequate access to the Internet (Q41) – a response with a high importance and low satisfaction rate
ADMISSIONS AND REGISTRATIONS

The participants are not satisfied with admissions and registration procedures, it is according to them not convenient and very slow (Q46). This response has a very high importance rate (100%) with a very low satisfaction rate (41%).
FINANCE AND FEES

The participants are of the opinion that the institution provides with regard to financial support and fees accurate information on the programme fee structure (Q50), accurate and current information about their financial liability (Q51), Information about a range of financial Aid schemes (Q52) and information about various types of bursaries available (Q53). Although the responses to the four questions about finance and fees are not significant low, the average satisfaction rating is not higher than 65% for services that are regarded by the respondents as very important (90% - 100%).

STUDENT SERVICES AND SUPPORT
The respondents are very satisfied (Q54 - 80%) with academic support that they received (lecturers, tutors and consultations), the importance for this question has a response rate of 100%. The respondents are of the opinion that the services for students with disability are inadequate (Q61), this question has a high importance rate (85%) with a low satisfaction rate (43%). The maintenance of student accommodation (Q62) is rated as very important with a low satisfaction rating (42%). Question 68 deals with the affordability and range of food on campus (high importance rate of 100%), the respondents are not satisfied with the provision of food (affordability and range of food - 41%). The respondents are very satisfied with health services (clinic) and the campus bookshop services (satisfaction above 80%).

Appendix H

STUDENT SATISFACTION SURVEY

BIO-SCIENCES

PROGRAMME RELATED ITEMS
THE VUT PROGRAMME IN WHICH YOU ARE ENROLLED
The respondents are of the opinion that the orientation was not satisfactory (Q3 – 42%). According to the majority of respondents, the workload of the programme is not manageable in the time available (Q7 – 40%). The satisfaction rate on question 13 with regard to the commitment of contract and part time teaching staff is extremely low (35%).

INSTITUTIONAL CULTURE
THE INSTITUTION PROMOTES:
According to the majority of respondents, the institution does not promote respect for alternative viewpoints (Q20 – 48%). The respondents are not satisfied with the institution’s promotion of communication. The responses on questions with regard to communication between top management and the students (Q23 – 42%), academic departments and the students (Q24 – 48%) and administration departments and students (Q25 – 45%) have very low satisfaction ratings with relatively high importance ratings.

TEACHING AND LEARNING FACILITIES AND SUPPORT

THE UNIVERSITY PROVIDES:

Responses on question 27 with regard to the provision of well equipped lecture rooms, are significant low (Q27 – 41%) with a high importance rating (70%). The respondent’s rating with regard to class accommodation is also extremely low with a relatively high importance rate (Q29 – 38% satisfaction and a high importance rate of 69%). The respondents are not satisfied with the institution’s provision of adequate
numbers of computers for the number of students or users, a very low satisfaction rate of 39% for question 30 with a high importance rate of 71%. A low satisfaction rate for questions 32 indicates that the respondents are not satisfied with the reserve collection of their field of study in the library (49%). The importance rate for this question is relatively high (69%). The respondents are dissatisfied with the capacity of the library to accommodate the number of users (Q33 – 34%), this question has an importance rate of 69%. The respondents are also not satisfied with the availability of photocopiers or photocopy services that the institution provides (Q34 – 40% satisfaction) and the current stock in the library (Q37 – 41% satisfaction rate). Question 38 evaluates the respondents' satisfaction with regard to support that they receive in the computer centre, this question has a satisfaction rate of 32% with an importance rate of 69%. The respondents are also dissatisfied with regard to the maintenance of computer facilities (Q39 – 40%). The respondents are dissatisfied with the adequacy of availability of printers and access to internet (Q40 and Q42 – satisfaction rate of 35%).

ADMISSION AND REGISTRATION
THE ADMISSION AND REGISTRATION PROCESSES

With regard to the admission and registration processes of the VUT, the respondents are in general dissatisfied with the service and processes. The respondents rated their satisfaction with the institution’s provisions of admissions and registrations as significant low, they rated the following processes with regard to admissions and registrations with a satisfaction rating of 38%: Q43 (easy to obtain information on admission procedures), Q44 (easy to follow admission procedures), Q45 (clear and accurate information about registration procedures). All these questions receive an importance rating of 69% and higher. They rated their satisfaction regard to the institution’s processes for quick and convenient registration and re-registration with 31%, the importance rating of this question is relatively high (70%). The respondents are of the opinion that the institution’s system to resolve administrative issues is unsatisfactory (Q47 – 34%). They are also not satisfied with the application process for residence accommodation (Q48 – 34%) and the fairness with regard to the implementation of the continuation of studies policies (Q49 – 47%).
FINANCE AND FEES
THE FOLLOWING ARE ACCESSIBLE AND AVAILABLE

The respondents are not satisfied with the institution’s provision of finance and fees, which include current and accurate information about their financial liability (Q51 – 49%), information about a range of financial aid schemes (Q52 – 45%) and information about various types of bursaries (Q53 – 41%).

STUDENTS SERVICES AND SUPPORT
THE FOLLOWING ARE ACCESSIBLE AND AVAILABLE

Questions 54 – 71 evaluate the satisfaction of the students with regard to student services and support. The respondents rated their satisfaction with regard to student services between as satisfaction rate of 62%
(promotion of health education, e.g. HIV/AIDS, drugs, smoking, etc) and 29% (Q61 the adequate services for students with disabilities). Q55 (peer mentoring) receives a low satisfaction rate (41%) with a relatively high importance rate (65%). The respondents are not satisfied with peer mentoring (Q55), study skills support (Q57), career counseling (Q58) and personal counseling services (Q59). The respondents are also not satisfied with the institution’s initiatives to provide a database with regard to potential employment (Q60). The institution’s delivery of adequate services for disabled students (Q61) are also rated significant low (28%). The respondents rated question 62 on their satisfaction with regard to adequate maintained accommodation 35%. The respondents’ satisfaction with regard to questions 67 (sufficient clean catering facilities), 69 (security services) and 70 (a professional and accountable SRC which represents all students) is rated between 48% and 50%. The response to question 68 (affordable range of food on campus) is significant low (31%) with a relatively high importance rating (65%). The respondents are not satisfied with the transparency of the SRC with regard to their activities (Q71 – 44%), this question has a relatively high importance rate of 62%.

Appendix I

STUDENT SATISFACTION SURVEY

CHEMISTRY

PROGRAMME RELATED ITEMS

THE VUT PROGRAMME IN WHICH YOU RE ENROLLED:

The respondents are in general very satisfied with the programme related items of the satisfaction questionnaire, e.g. meeting the expectations that they had prior to their enrolment (Q1 – 75%), the
programme closely links theory and practice (Q4 – 81%), the programme clearly states assessment requirements (Q9 – 71%), relevant and fair assessments (Q10 -70%) and develops interpersonal communication skills (Q16 – 71%). The respondents are not satisfied with the teaching and learning methods (Q6 – 50%, “interesting and appropriate teaching and learning methods) as well as feedback on assessments (Q11 – 50%“provides timely and constructive feedback on learning after assessment”). Question 11 has a very high importance rate of 89%. According to the respondents, the workload of the programme is not manageable in the time available (Q7 – 40%). The respondents are of the opinion that the contract and part-time staff are not committed (Q13 – 42%).

INSTITUTIONAL CULTURE

THE INSTITUTION PROMOTES:

The respondents are of the opinion that the institution fails with regard to effective communication between top management and the students (Q23 – 40% satisfaction rate and an importance rate of 80%). They are also not satisfied with the communication between academic departments and the students (Q24 – 49%). Question 24 has a very high importance rate of 91%). Question 25 has also a very low satisfaction rate of 40% with a high importance rate of 89%, this question deals with the communication between administration departments and students.
TEACHING AND LEARNING FACILITIES AND SUPPORT

THE UNIVERSITY PROVIDES:

The respondents are in general not satisfied with the teaching and learning facilities and support that they received. Responses with a satisfaction rate between 30% and 48% are the following:

Q27 – equipped lecture halls (importance rate is relatively high – 68%)
Q28 – equipped laboratories (importance rate is relatively high – 68%)
Q29 – classes which comfortably accommodate the students (importance rate is relatively high – 67%)
Q31 – information desk services in the library – 48%
Q32 – a reserve collection in the library for their field of study – 43%
Q34 – photocopiers or photocopy services – 38%
Q36 – availability of library staff – 40%
Q37 – current stock in the library – 29%
Q39 – adequate maintenance of computer facilities – 41%
Q40 – adequate availability of printers – 32%
Q41 – adequate access to the internet – 41%
Q42 – adequate study space and desks – 31%

The respondents are not satisfied with the adequacy of the numbers of computers for the number of students (Q30 – extremely low satisfaction rate of 18%). They are also of the opinion that the library cannot accommodate the number of users (Q33 – 28%). The respondents are dissatisfied with the support that they receive in the computer centres (Q38 – 29%).

ADMISSIONS AND REGISTRATIONS

THE ADMISSION AND REGISTRATION PROCESS

The respondents are in general dissatisfied with regard to the admissions and registration processes of the institution. The satisfaction responses were all below 43%:

Q43 – Easy to obtain information on admission procedures (39%)
Q44 – Easy to follow admission procedures (40%)
Q45 – Clear and accurate information about registration procedure (41%)
Q46 – Quick and convenient registration and re-registration procedures (18%)
Q47 – An effective system for resolving administrative issues (23%)
Q48 – An efficient application process for residence accommodation (23%)
Q49 – Fairness of continuation of studies policy (42%)
FINANCE AND FEES

THE UNIVERSITY PROVIDES:

The respondents rate with regard to their satisfaction with the university's provision of finance and fees, Q50 (current and accurate information on the programme fee structure) and Q53 (information about various types of bursaries), the lowest.

STUDENT SERVICES AND SUPPORT

THE FOLLOWING ARE ACCESSIBLE AND AVAILABLE:
The respondents rate Q54 as very important (academic support by lecturers) and are relatively satisfied with the support that they receive (69%). They are not satisfied with the following issues that are related to student services and support:

Q57 – Study skills support (38%)
Q58 – Career counseling (46%)
Q60 – A database for potential employment (45%)
Q61 – Adequate services for disabled students (28%) – the importance rate for this issue is relatively high (78%)
Q62 – Adequate satisfactory maintained accommodation (31%)
Q68 – Affordable range of food on campus (47%)
Q71 – Transparency of the SRC about its activities (49%)

Appendix I

STUDENT SATISFACTORY SURVEY

HOSPITALITY AND TOURISM

PROGRAMME RELATED ITEMS
THE VUT ORIGRAMME IN WHICH YOU ARE ENROLLED:

The respondents are in general satisfied with the programme related items of the survey, the lowest satisfaction rate is for Q13 (52%) regarding the commitment of contract/part time staff members. Items with a very high importance rate are Q6 (employs interesting and appropriate teaching and learning methods) and Q17 (develops competence in using appropriate modern technology). Q6 has a satisfaction rate of as high as 72%.

INSTITUTIONAL CULTURE

THE INSTITUTION PROMOTES:
The respondents are in general satisfied with the institutional culture. The item with the highest importance rate (80%) and lowest satisfaction rate (62%) is Q24 (communication between academic departments and students). The respondents are very satisfied with regard to the question on "non-sexist attitudes" (78% satisfaction and importance).

TEACHING AND LEARNING FACILITIES AND SUPPORT

THE UNIVERSITY PROVIDES:
The respondents are in general satisfied with the teaching and learning facilities and support that they receive. The lowest satisfaction rate is for Q30 (51% - adequate numbers of computers for the number of students). This question has a relatively high importance rate of 78%. Questions 38 (support in computer centres), Q39 (adequate maintenance of computer facilities), and Q40 (adequate availability of printers) have relatively low satisfaction ratings (52% - 53%) with relatively high importance ratings (above 74%).
The three items with relatively low satisfaction ratings are Q46 (50% - current and accurate information on the programme fee structure), Q47 (an effective system for resolving administrative issues – 56%) and Q48 (an efficient application process for residence accommodation – 52%).
FINANCE AND FEES

THE UNIVERSITY PROVIDES:

The respondents are in general satisfied with the items that are related in the questionnaire to finance and fees. They rate Q51 (current and accurate information about the student’s financial liability) as relatively high importance (81%) with a high satisfaction rate (71%). The lowest satisfaction rate is on information about various types of bursaries (Q53 – 59%).

STUDENT SERVICES AND SUPPORT

THE FOLLOWING ARE ACCESSIBLE AND AVAILABLE WHEN I NEED THEM:
The respondents are in general satisfied with student services and support, the highest satisfaction and importance rate is for Q56 (English language skills support on my campus). The satisfaction rate for this question is 78% and the importance rate 85%. Issues with lower satisfaction rates are study skills support (Q57 – 55%), personal counseling (Q59 – 53%), a database for potential employment (Q60 – 55%) and adequate services for disabled students (Q61 – 55%). The lowest satisfaction rating is for Q 68 (42%) on “affordable range of food on campus”.

Appendix K

STUDENT SATISFACTION SURVEY

ICT

PROGRAMME RELATED ITEMS

THE VUT PROGRAMME IN WHICH YOU ARE ENROLLED
The respondents are in general satisfied with the programme related items of the satisfaction questionnaire. The respondents are very satisfied with Q4 (79% satisfaction rate and 82% importance – “the programme closely links theory and practice”), Q5 (75% satisfaction and 81% importance – “the programme has useful and relevant study guides”) and Q18 (75% satisfaction rate and 78% importance – “the programme develops the ability to work as team members”). The majority of questions with a high importance rate have high satisfaction rates except for Q8 (56% satisfaction and 72% importance) that deals with the question “the majority of staff regularly consults the students about the programme quality”.

INSTITUTIONAL CULTURE

THE INSTITUTION PROMOTES
The lowest rating for questions on institutional culture was for Q23 (communication between top management and students – 51% satisfaction rate and 78% importance). Q19 (the institution promotes ethical values like honesty and integrity), Q24 (communication between academic departments and their students) and Q25 (communication between administration departments and students) have relatively low rates between 58% - 59% satisfaction).
The respondents are dissatisfied with the following services that the VUT provides: Q33 ("library which can accommodate the number of students"), Q34 (photocopiers or a photocopy service") and Q38 (41% satisfaction – “support in computer centre”). The respondents rate the provision of teaching and learning facilities and support in general low (between 50% and 61% satisfaction). The items listed in the questionnaire with regard to teaching and learning facilities and support are relatively high rated (between 82% and 75%).
The university’s provision of finance and fees are in general low rated by the respondents. Q46 (quick and convenient registration and re-registration procedures), Q47 (an effective system for resolving administrative issues) and Q48 (an efficient application process for residence accommodation) are extremely low rated - between 42% and 49% with a relatively high importance rate per question).
FINANCE AND FEES

THE UNIVERSITY PROVIDES:

The questions on finance and fees received relatively low satisfaction rates (Q50 – 62% on the institution's provision of current and accurate information on the programme fee and structure, Q51 – 63% on current and accurate information about the student's financial liability, Q52 – 62% on the information about a range of financial aid schemes). The lowest satisfaction rate was for Q53 (52% - information about various types of bursaries). All these questions have relatively high importance rates.

STUDENT SERVICES AND SUPPORT

THE FOLLOWING ARE ACCESSIBLE AND AVAILABLE:
The respondents are in general satisfied with student services and support except for Q60 (51% - a database for potential employment), Q61 (52% - adequate services for disabled students), Q62 (47% - adequately satisfactory maintained accommodation) and Q68 (50% - affordable range of food on campus). The respondents are very satisfied with the institution’s promotion of health education (Q63 – 75% satisfaction rate and 76% importance) and health services/clinic services (Q64 – 73% satisfaction and 81% importance).

Appendix L

STUDENT SATISFACTORY SURVEY

IT

PROGRAMME RELATED ITEMS

THE VUT PROGRAMME IN WHICH YOU ARE ENROLLED:
The respondents are very satisfied with the fact that their programme clearly states assessment requirements in all subjects (Q9 – 76% satisfaction and 85% importance) and that the permanent teaching staff are committed (Q12 – 75% satisfaction and 89% importance). They are dissatisfied with the fact that the majority staff fail to consult them on a regular basis with regard to the quality of the programme (Q8 – 42% satisfaction and 85% importance rate), that the contract/part time staff members are not always committed (Q13 – 51%) and that the programme is meeting the expectations they had prior to their enrolment (Q1 – 55% with 91% importance).

INSTITUTIONAL CULTURE

THE INSTITUTION PROMOTES:
The respondents highest rate for the institution’s promotion of an institutional culture is for Q21 (non-sexist attitudes). The satisfaction rate is 61% and the importance rate is 79%. Of significant value is the very low satisfaction rate for Q23 and Q24. Both questions have very high importance rates (79% and 85%) with extremely low satisfaction rates (45%). The respondents are in general dissatisfied with communication between top management and the students (45%), academic departments and their students (45%) and administration departments and the students (49%). The importance rate for these questions are relatively high (between 75% and 85%).

TEACHING AND LEARNING FACILITIES AND SUPPORT

THE UNIVERSITY PROVIDES:

With regard to teaching and learning facilities and support, the respondents rate questions 41 (adequate access to internet) and 42 (adequate study space and desks) as significantly low (50%). The respondents are dissatisfied with the institution’s provision of the following:

- Adequate numbers of computers for the number of students (Q30 – 49%)
- Library which can accommodate the number of students (Q33 – 40%, this question has an importance rating of 80%)
- Support in computer centres (Q38 – 41%)
- Adequate maintenance of computer facilities (Q39 – 48%, this question has an importance rating of 83%)
- Adequate availability of printers (Q40 – 49%)

ADMISSIONS AND REGISTRATIONS

THE ADMISSION AND REGISTRATION PROCESSES
The respondents are in general not satisfied with the admissions and registration processes of the institution with the lowest values for the following questions:

- Q46 – quick and convenient registration and re-registration procedure (32% satisfaction and 81% importance)
- Q47 – an effective system for resolving administrative issues (35% satisfaction and as high as 89% importance)
- Q48 – an efficient application process for residence accommodation (48% satisfaction and 75% importance).
FINANCE AND FEES

THE UNIVERSITY PROVIDES:

The values for the satisfaction of the university’s provision for services with regard to finance and fees are in general low with significant high importance ratings (between 78% and 85%). The respondents are dissatisfied with the following:

- Accuracy and current information on the programme fee structure (Q51 – 41% satisfaction)
- Current and accurate information on individual student's financial liability (Q52 – 45% satisfaction)
- Information about various types of bursaries (Q53 – 45% satisfaction).
The highest satisfaction value for questions on student services and support was for Q64 on health and clinic services. In general the respondents' satisfaction ratings for student support and services are low. The following issues receive significant low values:

- Peer mentoring in specific subject areas (Q55 – 40% satisfaction, 80% importance)
- Personal counseling (Q59 – 40% satisfaction and 70% importance)
- A database for potential employment (Q60 – 41% satisfaction and 79% importance)
- Adequate services if there are students with disabilities (Q61 – 35% satisfaction)
- Adequately satisfactory maintained accommodation (Q62 – 45% satisfaction and 78% importance)
- Sufficient clean catering facilities (Q69 – 48% satisfaction and 82% importance)
- A professional and accountable SRC which represents all students (Q70 – 48% satisfaction and 82% importance)
Q13 has a rating of significant value i.e. 45% satisfaction with regard to the commitment of contract and part-time staff members. The importance rate of this question is not high (55%). Questions with regard to programme related items receive in general average to high satisfaction values (60% - 83%). Question 8 reflects on the regular consultation of staff with students with regard to the quality of the programme, this question has a satisfaction level of 55% with an importance value of 73%. The respondents are very satisfied with the programme’s link with theory and practice (Q4 - 83% satisfaction and 88% importance) as well as the usefulness of their study guides (Q5 – 80% satisfaction and 90% importance).
The issues on institutional culture with the highest values are Q21 on the institution’s promotion of non-sexist attitudes (72% satisfaction and 78% importance) as well as Q22 on the degree in which the institution respects culturally diverse people (76% satisfaction and 81% importance). Of significant value are Q23 (communication between top management and students – 52% satisfaction with a very high importance value of 82%), Q25 (communication between administration departments and students – 52% satisfaction and 81% importance rate) and Q26 (the institution’s promotion of cultural activities – 52% satisfaction with an importance value of 68%).
Questions that receive high importance values with relatively low satisfaction values are Q27 (the university provides well equipped lecture halls – 58% satisfaction and 92% importance), Q29 (classes which comfortably accommodate the students – 51% satisfaction and 90% importance), Q33 (library which can accommodate the number of students – 45% satisfaction and 92% importance), Q38 (support in computer centres – 49% satisfaction and 82% importance) and Q42 (adequate study space and desks – 55% satisfaction and 94% importance). The respondents are satisfied with the institution’s arrangement with regard to library times – Q35.
ADMISSIONS AND REGISTRATIONS

THE ADMISSION AND REGISTRATION PROCESSES

Q46 (the admission and registration processes are quick and convenient) and Q48 (there is an efficient application process for residence accommodation) receive high importance values but very low satisfaction values. Q47 reflects on the effectiveness of the system for resolving administrative issues; this question receives a satisfaction rate of 51% with a relatively high importance rate of 79%.

FINANCE AND FEES

THE UNIVERSITY PROVIDES
The respondents are in general satisfied with the institution's provision of finance and fees. Q53 receives a relatively low satisfaction value of 56% and a high importance rate of 91% on the institution's provision of information about various types of bursaries.

STUDENT SERVICES AND SUPPORT

THE FOLLOWING ARE ACCESSIBLE AND AVAILABLE
Questions with significant low satisfaction values with high importance values are Q58 (Career Counselling – 50% satisfaction and 89% importance), Q60 (a database available for potential employment – 46% satisfaction and 78% importance), Q61 (adequate services for disabled persons – 41% satisfaction and 70% importance), Q62 (adequately satisfactory maintained accommodation – 43% satisfaction and 78% importance) and Q68 (affordable range of food on campus – 45% satisfaction and 85% importance). The respondents are very satisfied with the institution’s promotion of health education on campus (Q63 – 80% satisfaction and 86% importance). The following questions receive very high importance values with relatively low satisfaction rates:

Q54 – 68% satisfaction and 95% importance on the availability of academic support by lecturers (e.g. tutoring, consultations, etc)

Q69 – 58% satisfaction and 95% importance on security services

Q71 – 63% satisfaction and 90% importance on transparency of the SRC about it’s activities.
BIBLIOGRAPHY


APPENDIX B: SATISFACTION SURVEY CONDUCTED AT SECUNDA CAMPUS (2010): AN INVITATIONAL EDUCATION POINT OF VIEW
SATISFACTION SURVEYS AS MECHANISMS TO ASSESS THE SUCCESS OF AN INSTITUTION OF HIGHER LEARNING AS AN “INVITING INSTITUTION”: A CASE STUDY

H.J. Brits
Vaal University of Technology
Tel: (016) 950 – 9559/ 0836297445
Fax: 0866 – 128837
e-mail: hansb@vut.ac.za

ABSTRACT

This study reflects on an institution of higher learning’s study to determine the satisfaction and importance values of questions that relate to services rendered by the institution. This institution’s Academic Plan and its teaching and learning strategies underpin theoretically socio-constructivism. This study was conducted from an invitational education point of view. The above-mentioned “Institution A” utilised a satisfaction survey questionnaire that measured the respondents’ satisfaction per question as well as the respondents’ view regarding the importance of the respective issues. The questions reflected a wide spectrum of services rendered to the students of the institution. The information gathered during this study was interpreted within the framework of invitational education and utilised for quality enhancement purposes. The rationale for the study was to collect information that would identify deficiencies and inform remedial action processes as well as the collection and identification of data in order to determine the degree to which the institution could be regarded as an “inviting institution”. There is strong link between the principles of invitational education, Total Quality Management (TQM) and socio-constructivism. The principles of TQM are generic management principles that can be applied to quality management of institutions of higher learning. The article reflects on the method that was used
during the study as well as the outcome of the exercise and the interpretation of the data within the context of invitational education and quality management.

**Key words:**

Invitational Education, Total Quality Management, Satisfaction Surveys, Socio-constructivism, continuous improvement.

**INTRODUCTION**

The majority of quality management systems of institutions of higher learning are underpinned by the notion of continuous improvement of processes in order to meet the expectations of the “customers” (Meyer 1998:32). For the purpose of this article, the primary customers in higher education are regarded as an institution’s staff and students. It is, therefore, important to determine and to address the needs and expectations of the customers in higher education (Evans and Lindsay 2002:246). “Institution A” developed a quality assurance system based on the principles of total quality management (TQM). De Bruyn (2002:324) refers to TQM as a “carpetbag term” for more than one approach to quality management, Ferreira (2003:9) states that TQM principles become the driving force for quality improvement with institutions around the world and forms the basis for the development of the majority of quality management models such as the Baldrige Quality Award, the European Foundation for Quality Management, the South African Excellence Model and the International Organisation for Standardisation. Horine (1992:38) emphasises the tendency of educators in the United States of America to implement principles of TQM in order to enhance quality of teaching and learning. Central to the quality management philosophy of TQM is the notion of continuous improvement (Oakland 1998:32) and customer satisfaction (Oakland 1998:124). The TQM approach can be described as a customer-centred approach. This approach concurs with invitational education. TQM has generic management principles, techniques and processes in comparison with quality management models. TQM principles have been
proven to be effective for many organisations and especially for institutions of higher learning (Brits 2010:68, Cole 1995:59).

Institution A developed its Academic Plan and teaching and learning strategies within the theoretical framework of socio-constructivism, these documents reflect a strong student/customer-centred approach. This institution regards its students as internal customers, it developed a quality assurance system based on the principles of TQM i.e. quality is addressing the needs and expectations of the customer (Oakland 1988:27). An assumption can therefore be made that Institution A concurs in its views with regard to its learning theory with that of Suchman (1987:50) i.e. effective learning is an interaction with and support from human beings and physical artefacts. As already mentioned, it also concurs with the customer-centred philosophy of TQM. Hunter and Smith (2007:1) defines invitational education as “a student-centred approach to the teaching-learning process”. The aim of invitational education is to “make school the most inviting place in town” (Purkey and Novak 1984:2). The assumption can therefore be made that an institution that implements the theory of socio-constructivism in its teaching and learning approach that is underpinned by the principles of TQM, should be regarded as an “inviting institution”.

Satisfaction surveys form part of Institution A’s quantitative data collection methods during academic programme and departmental reviews. The institution utilises staff and student satisfaction questionnaires as quantitative instruments to measure the satisfaction level of its primary customers. This article wishes to investigate, by means of a student satisfaction survey, the degree to which Institution A succeeds in being an “inviting university” with reference to Purkey and Novak’s (1984:2) statement of the aim of invitational education, that is, “to make school the most inviting place in town”. The rationale for this exercise is to determine what the perceptions of the students are with regard to their experience as internal customers of Institution A. The survey will also indicate the degree to which the institution’s students regard it as an “inviting institution”. The outcome of the survey will be utilised by the institution to
facilitate a process of remedial actions as part of its quality assurance system and to stimulate an institutional discourse on invitational education.

**MEASUREMENT AND SAMPLE**

Survey questionnaires were designed to give the respondents an opportunity to comment honestly and anonymously on the best and worst aspects of their experiences (Davies 2003).

Questionnaires

The university’s Quality Promotion Unit (QPU) conducted a satisfaction survey with the students of three faculties at Institution A. A probability sampling method was followed by selecting classes that represented senior (not first-year) students of programmes under evaluation for the review cycle of 2010. The completed questionnaires per faculty were fed into the optical mark reader after a process of elimination of partially completed questionnaires. Structured questions (attitudinal type) were used in the survey in order to determine the perceptions of the customers (students).

The student satisfaction questionnaire measured the respondents’ satisfaction with regard to programme-related items, institutional culture items, teaching and learning facilities and support items, admission and registration processes, finances and fees, as well as general student services and support items.

**Scaling**

Scaling is “a procedure for the assignment of numbers to a property of objects in order to impart some of the characteristics of numbers to the properties in question” (Bernard 1971:205). The respondents evaluated each statement on the questionnaire on a five-point (Likert) rating scale (Cooper and Schindler
The questionnaires consisted of statements regarding which the respondents were asked to agree or disagree. The respondents chose one of four levels of agreement, or they chose “not applicable” if a particular statement was not applicable. Each question had four possible values; the numbers indicated the value to be assigned to each possible answer (1 for very dissatisfied or not very important and 4 for very satisfied or very important). Each question had a separate column that measured the satisfaction and the importance per item on the questionnaire.

The respondents rated the satisfaction as well as importance level during the completion of the questionnaires. The satisfaction and importance levels are important indicators in order to determine the “performance gap” per item. The performance gap can be determined by means of subtracting the satisfaction rating per item from the particular item’s importance rating. The larger the performance gap for a particular item, the greater the concern should be to improve the specific issue. This article only reflects on the issues with a significant performance gap of $\geq 20\%$. The latter is not only a reflection on the institution’s success in being an inviting institution, but emphasises the necessity of becoming one.

**INVITATIONAL EDUCATION**

Invitational education is a theoretical model that addresses the total educational environment (Purkey and Schmidt 1996), based on perceptual psychology. Invitational education is a “perceptually based, self-concept approach to the educative process and professional functioning” (Novak 1983:5). Invitational education is an education model that promotes a person’s realisation of his or her full potential. This educational approach postulates that a person creates his or her own reality by means of what he or she believes is real (Combs and Gonzales 1994). It assumes that an individual’s behaviour is dependent on his or her perception and interpretation of what he or she experiences. The assumption that a person’s behaviour is based on his or her perceptions and that the latter (an individual’s interpretation of the environment) is learned is underpinned by perceptual psychology. This postulation, therefore, suggests that what the individual has learned from his or her interpretation of the environment can also be
unlearned, provided that the particular individual is exposed to new experiences or new information. It is, therefore, imperative to understand the perception and interpretation of the individual’s life experience (frame of reference) in order to understand his or her behaviour. The notion “self-concept” in the context of invitational education refers to the individual’s unique system of perceptions about the self in relation to his or her environment. A person maintains a consistent self-concept by declining those perceptions that do not fit his or her preconceptions and by incorporating those perceptions that fit his or her preconceptions. The self-concept of a person can be changed or developed as a result of inviting acts.

The basic principles that underpin invitational education are the following:

1. People are able, valuable, and responsible and should be treated accordingly.
2. Education should be a collaborative, cooperative activity among people.
3. People possess relatively untapped potential in all areas of human development.
4. This potential can be realised by places, policies, and programmes that are designed specifically to invite optimal development and by people who are intentionally inviting to themselves and others (Novak 1983:5).

Invitational education is based on the understanding of intra- and interpersonal as well as institutional “messages”. In their work, Purkey and Novak (1984) emphasise the concept “teaching is inviting”. They are of the opinion that every person and everything in and around schools and, for the purpose of this article, universities, serve as signal systems that invite or disinvite academic success. Therefore, the physical environment, curricula, and policies of an institution send messages to the students as internal customers that can be inviting or disinviting. In this regard, Novak (1983:12) uses the metaphor of the school (university) as an “inviting family” rather than an “efficient factory”. The inviting family as metaphor for an institution of learning has characteristics of respect, cooperation, a sense of belonging, a pleasing habitat, and positive expectations (Novak 1983:12). Actions, policies, places, and programmes
are developed as a result of this understanding, which is attached to attitudes of respect and care, aimed at enhancing positive relationships and human potential.

Four assumptions

Invitational education is centred on four assumptions in the form of four propositions based on trust, respect, optimism, and intentionality.

*Trust*
According to Purkey (1991:3), education is “... cooperative, collaborative activity where process is as important as product”. Interdependence of human beings is a basic ingredient of invitational education. “Each individual is the highest authority on his or her personal existence” (Purkey 1991:3). This is why it is imperative that each person should be given an optimally inviting environment in order to find his or her own best way of being and becoming.

*Respect*
Invitational education views human beings as able, valuable, and responsible. They should be treated accordingly (Novak 1983:8). Shared responsibility based on mutual respect is essential for any institution of learning. Every member of an institution of higher learning should, therefore, exhibit caring and appropriate behaviours. With regard to the mutual respect in a school and, for the purpose of this article, relevant to an institution of higher learning, Purkey (1991:3) states that “This respect is manifested in the caring and appropriate behaviours exhibited by everyone in school as well as the places, policies, programmes and processes they create and maintain”.

*Optimism*
Invitational education makes the assumption that every individual possesses untapped potential. A person is unique in the sense that there are no clear limits to his or her potential, which should be discovered. In this regard, Novak (1983:9) states that “seeing people as able is an acknowledgment that each person has relatively untapped capabilities for thinking, choosing and learning”. Inviting is not enough; what is imperative is to be optimistic about the process. Every individual chooses directions in life, with the hope that change for the better is possible. From the viewpoint of invitational education, people have untapped potential, which necessitates that curricula be devised, policies be established, programmes be supported, processes be encouraged, the physical environment be created, and relationships be established and maintained (Purkey 1991:3). The inviting approach assumes that people will choose to cooperate in activities that are perceived by them as having significance in their lives.

**Intentionality**

The potential of the individual can be best realised by means of places, processes, and programmes that are designed to invite development and by human beings who are intentionally inviting with themselves and others. An invitation is viewed as an intentional act designed to offer something beneficial for consideration. Educators should create and maintain caring institutions that are characterised by purpose and direction.

Five environmental areas of invitational education

The focus of invitational education is on its five environmental areas or the so-called five “Ps”, that is, people, places, policies, programmes, and processes. The five components of the invitational teaching process are realised within the teaching environment or teaching ecosystem.

**People**
Within the context of this article, the word “people” refers to the academic staff as educators and the students as learners. Educators create learning theories and approaches (Purkey and Schmidt 1990:37).

Within the context of invitational education and teaching, the educator should embrace and live out the characteristics of trust, exclusivity, respect, optimism, accessibility, courtesy, intentionality, and concern, as they transmit invitational messages (Purkey and Stanley 1991:68-71). The concept “people” also relates to the degree of respect and honouring of staff members for diversity. It, therefore, refers to the teacher’s and support staff’s positive influence on invitational teaching. Characteristics of disinviting educators contribute to what Cloer and Alexander (1992:2) call “unfavourable quality of school life”. Academic staff should develop an “inviting attitude” towards themselves and to others.

Cloer and Alexander (1992:1) emphasise how important it is for successful teaching and learning that educators should view their students as capable individuals with the potential to learn new skills and subject matter. Students should experience an environment in class that is caring and supportive. It should be a place where everyone experiences a sense of belonging and where every individual is respected and valued. Many factors contribute to the interest and level of engagement of students. Classroom climate is an important contributing factor to ensure students’ full participation in the learning process. The teachers’ teaching philosophy and, according to Brooks, Freiburger, and Grotheer (1988), their beliefs about their own teaching and learning, as well as the expectations that they hold for their students, exert a significant influence on the success of the teaching and learning process.

Educators and students are continuously in interaction. The educator enters a classroom with specific objectives in mind; the classroom forms part of the ecosystem. These objectives or teaching intentions can be achieved by means of sustained interaction with the students as participating partners. All the factors of the five “Ps” contribute to the development of the full potential of the students.
In invitational education, there are four levels of functioning in the personal and professional living of teachers, that is, intentionally disinviting, unintentionally disinviting, unintentionally inviting, and intentionally inviting.

**Places**

The term “places” relates to all physical aspects or the physical environment (Purkey 1999:2). Within the context of an institution of higher learning, “places” refers to physical infrastructure such as offices, lecture rooms, and laboratories. This area is important because teaching is affected by matters such as the layout of a lecture room and its surroundings. Purkey and Schmidt (1990:32) emphasise that everything that a person experiences in his or her life is influenced by the physical environment and layout. Shortcomings within the physical environment can be detected by individuals. If the learner can detect shortcomings within the physical environment, it transmits negative or disinviting messages. The physical environment should communicate a message of trust, respect, optimism, and intentionality, which constitute the four elements of invitational teaching. Within this context, lecture rooms, administration and staff offices, and other institutional facilities should give evidence of functionality, cleanliness, and efficiency and testify as invitational space. The physical environment should send a message of intentionality, as it contributes to effective teaching and learning.

**Policies**

Policies refer to an institution’s written and unwritten codes, procedures, and rules that control the continuous functioning of the organisation and its internal customers. The educator is sometimes challenged with conditions where institutional teaching policies with relevant procedures, rules, regulations, and practices do not reflect, or are not on par with, elements of invitational teaching (Purkey and Schmidt 1990:34).

**Programmes**
Programmes refer to the teaching curriculum in order to develop an academically, physically, and socially inviting environment. The programmes of an institution of higher learning should focus on the needs and expectations at macro as well as micro level in order to ensure that the community as well as the individual benefits from them (Purkey and Schmidt 1990:35).

**Processes**

In invitational teaching, the concept “processes” refers to content and context. The educator communicates content within the invitational teaching. Processes include issues such as academic orientation, networking, skills, democratic character, cooperation, procedures, interaction, grouping, assessment, and opportunities within an institution. Processes refer to an institution’s values and the attitudes of its staff (academic, support, and administrative) and its students.

Institutions of higher learning should achieve in developing students’ full potential by creating and maintaining the five “Ps”. The five “Ps” that constitute the ecosystem provide security to the process of invitational teaching.

**INTERPRETATION OF DATA**

The QPU conducted a literature study on invitational education, which informed the development of the satisfaction survey questionnaire. The QPU collected all completed questionnaires and fed the data into an optical mark reader. The results were printed in the form of bar charts. A detailed report was submitted to the institution’s management for quality management and resource allocation purposes. The following graph illustrates the values of the clustered items that are related to this study. All the items have performance gaps of significant value. They are viewed by the QPU as significant, that is, $\geq 20\%$ gap between satisfaction rate and importance per item:
The following is a discussion of the above-mentioned graph against the background of invitational education. The abbreviation “Q” stands for a specific question, and a number (for example, Q1) refers to a specific question on the satisfaction questionnaire that was used. The above-mentioned bars represent the outcome of several questions that were clustered under different topics: programmes, communication, teaching and learning, administration, and academic support. The topic “programme” in the above-mentioned graph is an average value in percentage for the respondents’ reflection on the following questions: programmes have a satisfactory orientation for students (Q3), programmes employ interesting and appropriate teaching and learning methods (Q6), programmes have a workload that is manageable in the time available (Q7), and programmes have a majority of staff who regularly consult students about the quality of the programmes (Q8). There is a huge gap between the satisfaction and importance values of the item “programmes” (a performance gap of 24%). The performance gaps in the respondents’ response to the questions with regard to Q3, Q6, and Q8 raise concerns from an invitational education perspective with regard to the five “Ps”. They indicate a very low participation of the students with regard to the enhancement of programme quality, which transgresses the view that invitational education should be cooperative and collaborative activities. It is further a transgression of a principle in invitational education, that is, the acknowledgement of the individual as the highest authority with regard to his or her existence. The fact that the respondents felt that the staff did not always offer them an opportunity to reflect on the programmes emphasises the possibility that they do not have the characteristics of invitational educators, but are what Cloer and Alexander describe as “disinviting educators”. The proposition “optimism” in invitational education makes the assumption that the untapped potential of human beings necessitates actions such as the devising of curricula that should be conducted with the participation of the students themselves.
It further seems that the institution failed to offer the respondents an induction programme that satisfied their needs. There are, therefore, from an invitational education point of view, evidence and serious concerns with regard to the message that the students receive, which contradicts the characteristics of an “inviting university” as an “inviting family” (Novak 1983:12). It contravenes the propositions of trust, respect, as well as intentionality. The latter refers to the proposition of invitational education that human beings should be intentionally inviting with themselves and with others – a proposition that is ignored with regard to the institution’s offering of its academic programmes, but also with regard to communication. The bars on communication (the second pair on the horizontal axis) have a performance gap of 30%, with an importance value of 80%. This emphasises that the academic staff are not viewed as invitational educators and that the proposition of “optimism” with regard to relationships that are established and maintained is overlooked by the institution. This bar reflects the average of the responses to communication questions, that is, Q23 (students and staff), Q24 (academic staff and students), and Q25 (administrative staff and students). This indicates that there is insufficient interaction between staff and students at all institutional levels. This is also emphasised by the above-mentioned lack of opportunity for reflection on the quality of programmes by students. This relates to the environmental area of “people” in invitational education, that is, that students and staff should be fully engaged in the learning process (Purkey and Schmidt 1990:37).

The third pair of bars reflects the teaching and learning facilities and support. The satisfaction bar for teaching and learning facilities and support has a very low value of 40% and a significant high importance value of 86%. The performance gap is an alarming 46%. These values reflect issues that are especially related to “places” with regard to the five “Ps” of invitational education. The responses to these questions relate to the physical aspects of the environment and received extremely low values during the survey. The following aspects were evaluated: adequacy of study space and desks, access to the Internet, availability of printers, a library that can accommodate the number of students, the number of computers available for students, classes that comfortably accommodate students, and well-equipped laboratories.
The physical environment is an important contributing factor in invitational education, as it influences the experience of the individual (Purkey and Schmidt 1990:32). According to the viewpoint of invitational education, the shortcomings transmit negative or disinviting messages and not messages of trust, respect, optimism, and intentionality (that is, the four elements of invitational education).

The last pair of bars on the horizontal axis reflects the institution’s admission and registration processes and procedures. The outcome of the survey shows a relatively low satisfaction value of 51% and a performance gap of 33%. With regard to the five “Ps” in invitational education, these questions relate to “policies”. The regulations of the institution with regard to admissions and registration send messages that can be regarded as disinviting. The respondents referred to unclear and inaccurate information, inconvenient procedures to follow, an ineffective system to solve administrative problems, etc.

**REMEDIAL ACTIONS**

As already mentioned in this article, satisfaction surveys form part of Institution A’s review mechanisms within a quality assurance framework that is based on the TQM philosophy. The institution’s quality assurance processes include satisfaction surveys, focus group interviews, as well as the critical self-reflection on its activities of the particular department under evaluation. This information gathered during the review process of a department informs its remedial action plan.

The data gathered by means of the survey has two purposes, that is, informing the remedial action process by means of replanning and resource allocation and, secondly, the development of a conceptual framework document on invitational education and the particular institution’s way forward to become a successful “invitational institution”. Invitational Education is a model and philosophy that should be considered by institutions such as Institution A to be utilised as a mechanism to learn its learners methods to release their human potential.
CONCLUSION

Invitational education and total quality management are mutually inclusive approaches to quality management in higher education (Paxton 1993). This article demonstrates how satisfaction surveys can be utilised as a quality assurance mechanism to measure the degree in which an institution of higher learning fulfils the demands of invitational education and the generic principles of quality management with special reference to TQM.

The satisfaction survey findings identified the need for enhancements in a variety of areas. The key focus of this study was on two issues, that is, the implementation of appropriate remedial actions in order to improve services rendered to staff and students and the collection and interpretation and dissemination of information on the students’ perception of the degree to which the institution could be regarded as an invitational institution. The following can be regarded as positive factors that contributed to the success of this study:

- The respondents responded not only on how satisfied they were with regard to a specific service rendered to them, but also how they regarded the importance of the particular service. This information is valuable from a quality assurance point of view, as it indicates the performance gap per question. The issues with significant performance gaps were viewed as indicators of deficiencies within the framework of invitational education.
- The study showed the similarities with regard to the generic principles of quality management and for the purpose of this study, of TQM and invitational education. They have certain concepts and assumptions in common, that is, the client-centred approach (e.g. TQM) and the learner-centred approach of invitational education. The study was conducted to determine the satisfaction levels of the respondents as the institution’s “internal customers”, which also
mirrored the degree to which the respondents perceived the institution as invitational. The purpose of quality management models such as TQM is to identify the customers’ needs and expectations, to identify and rectify the deficiencies, and, by doing that, to enhance (from an invitational education point of view) the ecosystem of the learner by focusing on people, places, programmes, processes, and policies.

- The questionnaires were completed anonymously.
- The questions were clearly phrased.
- The data of the pre-coded questions were fed into an optical mark reader system. This ensured the processing and availability of data for the purpose of interpretation within a relatively short period.

Issues that should have been avoided:

- Too many questions were asked. A respondent should answer each question by reflecting on how satisfied he or she is with a particular issue and, secondly, how important the particular service or issue is.
- The many questions and the limited time available to complete the questionnaire (within one contact session) should be regarded as factors why a large percentage of the incomplete questionnaires were discarded.
- The two columns to be completed per question led to confusion. The majority of respondents completed the questionnaires only partially, for example, one column per question (either satisfaction or, sometimes, importance was completed).
- The respondents should have been instructed on how to complete the questionnaires, for example, that both the satisfaction and importance columns per question should be completed, that they should only use black pens or pencils, etc.
The utilisation of qualitative information, for example, the utilisation of focus group interviews, could have added more value to this study. Interviews would have allowed the institution to collect more in-depth information on certain issues and could have enhanced the scientific value of the study due to the triangulation of information.

This study was valuable, as it furnished the institution with data that could be utilised to determine the performance gap per specific service rendered. In this study, the utilisation of satisfaction surveys functioned as a mechanism to measure to what extent the institution was viewed by its students as an invitational institution. From a quality management point of view, it is important that the respondents receive feedback on the outcome of the survey, that is, how this study has informed the institution’s initiatives in enhancing its core business and how selected data has been used to start a discourse on campus on becoming a successful invitational institution.

The QPU drafted a second report that reflects on the outcome of the survey within the framework of invitational education. This report is regarded as a discussion document that will introduce and sensitise the relevant stakeholders to the principles of invitational education. It is imperative that the stakeholders on all levels of the institution should be introduced to the philosophy and approach of Invitational Education i.e. top management (rectorate, senior managers and all stakeholders that functioning on the institution’s strategic- and tactical levels), the institution’s student support services (teaching and learning support units), institutional services (maintenance services, IT services, finance, etc), quality management (aligning quality assurance mechanisms to Invitational Education approach, as an example, revising minimum standards for programme and department reviews, utilising review methods such as focus group interviews and surveys to measure how successful the university is as an “inviting” institution on strategic as well as operational levels).

245


STUDENT SATISFACTION SURVEY
ISSUES WITH HIGH "PERFORMANCE GAPS"

Satisfaction

Importance

Programme Communicate Teach/Learn Admin Support