

University of KwaZulu-Natal

**A Positioning Theory Perspective on Enrolment Targets: The
Case of UKZN's Foundation Programme**

By

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Executive Summary

Universities, like many other service organisations are operating in a competitive environment aiming to attract the best students. It is therefore important for them to understand how they are positioned in the minds of their target market. “Positioning is the image the product or service has in the mind of the consumer” (Walker, Mullins and Larreche, 2008, p.150).

Since its inception the Foundation Programme at the University of KwaZulu-Natal has been more successful in meeting its enrolment targets than in recent years where this has not been the case on the Pietermaritzburg campus. This study attempted to help understand the reasons for this and in doing so investigated the effect of a number of possible factors contributing towards this problem. These factors included the positioning of the programme to its target market, the needs of target market, the effect of competing universities, the availability of Financial Aid, the merger between the Universities of Natal and Durban-Westville and the introduction of the Augmented programme.

The Foundation Programme’s target market includes learners from disadvantaged schools in South Africa. Grade 12 learners doing Science and Mathematics from this target marker were the chosen participants for this study. Seven objectives were set to address this research problem. Using a positioning framework the first objective was to identify the determining dimensions, i.e. what factors are looked by the target market when choosing an access programme and university. The second objective was to establish how various products were rated on those dimensions to determine how the Foundation programme is positioned within the target market relative to competing programmes. The third objective was to assess whether the needs of access students are incorporated into the way the programme is positioned. Determining the perceptions of the target market of the adverting strategies for this programme was the fourth objective. The fifth objective was to examine the effect of Financial Aid, or the lack thereof, on the perceptions of the target market. The sixth objective was to evaluate the effect of the merger on the perceptions of the target market, and the final objective was to critically evaluate the impact of the introduction of the Augmented programme on the enrolment numbers.

The triangulation methodology was followed for this study. Firstly the researcher used literature to identify the key attributes and issues surrounding this study. The data collection consisted of two stages: qualitative research which included focus groups (Stage 1) and quantitative research which included questionnaires (Stage 2). The literature was used to develop Stage 1 of the data collection

and the findings of Stage 1 were used to develop Stage 2 of the data collection. All three areas are brought together in the discussion and conclusions. The data was analysed using Excel and SPSS. Issues of reliability and validity were addressed throughout this study.

The findings of this study showed that the overall positioning of Foundation Programme is not aligned to the needs of the target market. UKZN is seen very positively and was given the highest rating compared to competing universities. However there are still gaps between where UKZN is in the mind of its target market and where their needs are. The biggest gap was in the area of financial assistance and this was followed by infrastructure of the university. Both these factors are of particular importance to the target market because of their disadvantaged background. The findings also showed that amongst the target market there is not enough awareness of access programmes in general and in particular the access programme at UKZN. The Centre for Science Access's (CSA) advertising isn't reaching a substantial portion of the target market. The merger did not have any negative effect on the target market's choice of which university to attend. However since the merger what has happened is that the pool of applicants is being shared across the two centres of the CSA. The Augmented Programme has also not affected the enrolment targets of the Foundation Programme, rather it has affected the "quality" of students in the Foundation Programme. If the Augmented Programme was not introduced the Foundation Programme would be taking in students with higher matric scores.

Recommendations were made to improve the position of the Foundation Programme in the minds of its target market. These were directed to the CSA management, UKZN policy makers and the Department of Education.

Declaration

I Yvette Chetty declare that

- (i) The research reported in this dissertation/thesis, except where otherwise indicated, is my original research.
- (ii) This dissertation/thesis has not been submitted for any degree or examination at any other university.
- (iii) This dissertation/thesis does not contain other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons.
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Signed:

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List of Abbreviations Used

CSA – Centre for Science Access
DoE – Department of Education
Pmb – Pietermaritzburg
SFP – Science Foundation Programme
UCT – University of Cape Town
UKZN – University of KwaZulu-Natal

Chapter 1: Introduction

1.1 Introduction

The decision about attending university is exciting and important as it marks the end of a chapter in one's life and leads to the beginning of another filled with exciting possibilities. The positioning of universities affects, and will contribute to this decision for the individual. "Positioning refers both to the place a product or brand occupies in customer's mind..." (Walker, Mullins and Larreche, 2008, p.150).

"Create an image for your company or your competitors will do it for you" is the advice of Keever (1998, cited in Ivy, 2001, p.276). Like many other service organisations universities too are operating in a competitive environment aiming to attract the best students. It is therefore important for them to understand how they are positioned in the minds of their target market. Dibb and Simkin (1992, p.31) emphasise the critical value of positioning and point out that "a position of the product is dependent on how its consumers perceive its standing, its quality, the types of consumers who use it, its strengths and weaknesses, memorable characteristics, price and value, promoted image and value". These features are also supported by Walker and Mullins (2011, p.154). Thus the positioning of universities will affect the one an individual will choose.

1.2 Background and Context

"The history of education in South Africa is marked by segregation and inadequate schooling for most black people" (Boekhorst, 2004, p. 67). "During the apartheid era resources were lavished on schools serving white students while schools serving the black majority were systematically deprived of qualified teachers, physical resources and teaching aids such as textbooks and stationery" (Fiske and Ladd, 2006, p.96). This sentiment is echoed by Brown (2006, p.512) who states that Blacks were denied the most basic citizenship rights, laboured in low paying jobs, attended poor schools and lived in extreme poverty. Apartheid education sought to destroy Blacks' intellectual skills; skills such as creativity, innovativeness and ambition which are today revered by business and government (Swart and Foley, 1996, p.38). Mncwabe (1993, p.3) concurs by stating that the quality of the education system for Blacks has been so low that it makes it difficult for them to meet the demands of modern society. These unfair discrepancies amongst the races resulted in an inferior education for the majority of black South Africans which also left them insufficiency prepared for university studies.

Promoting racial equity in the education system was a major task of the new democratic South African government that assumed power in 1994 (Fiske and Ladd, 2006, p.96). Since then there has been ... “extensive and widely commended policy development in the education sector, aimed not only at undoing the network of apartheid legislation but also at positioning the sector in relation to international trends” (Scott, Yield and Hendry, 2007, p.9). Hence the provision of access programmes was accelerated, as these were aimed at increasing the number of previously disadvantaged individuals entering university and bridging the gap between learner’s school attainments and the demands of higher education programmes (Department of Education, 1997, chapter 2, paragraph 32).

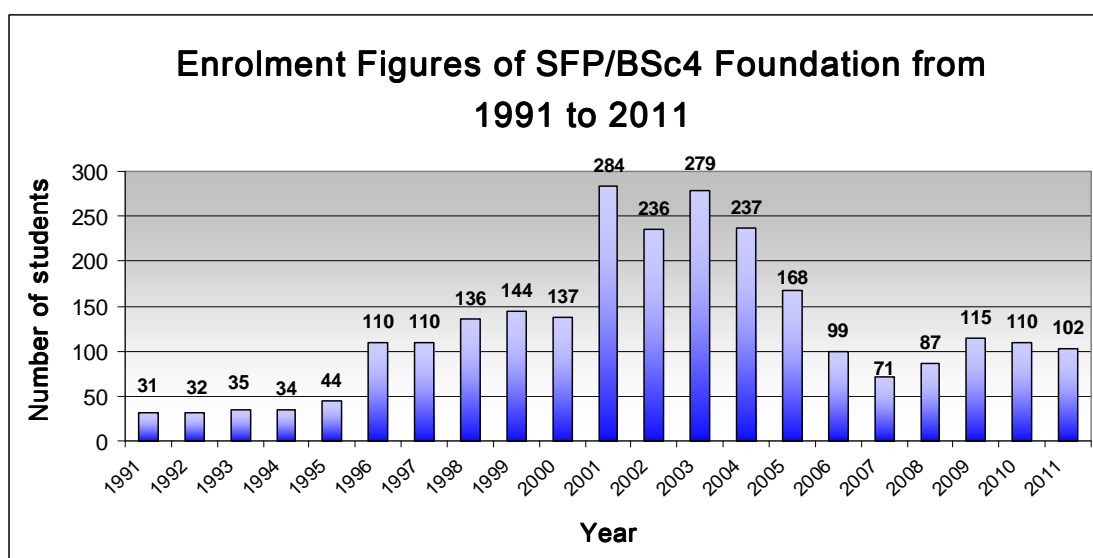
The University of KwaZulu-Natal whose aim is to be ... “a truly South African university that is academically excellent, innovative in research, critically engaged with society and demographically representative, redressing the disadvantages, inequities and imbalances of the past” responded to the need of the disadvantaged learners through the implementation of the Science Foundation Programme (University of KwaZulu-Natal, 2004c, paragraph 2). The Science Foundation Programme (SFP), which is part of the Centre for Science Access (CSA), was established in 1991. It is a one year, alternative access programme which provides an access route for underprepared students to enter the Faculty of Science and Agriculture. The programme is an example of the University of KwaZulu-Natal's strategic planning, to transform itself and to address the problems created by the educational inequities of secondary schooling in the apartheid era (University of KwaZulu-Natal, 2004b, paragraph 1). According to Grayson (1996, p.993) the aim of the SFP is to enable black students to overcome the gap through a year-long transition from where they are when they enter the university, to where they need to be in order to succeed in a science (or science-related) degree programme. Thus the SFP targets a specific group of students with unique needs compared to those that enter mainstream degrees directly and provides a separate programme for them designed to meet their unique needs.

The SFP initially started with 31 registered students in 1991 on the Pietermaritzburg campus of the then, University of Natal. Since then it has grown and is currently offered on the Pietermaritzburg and Westville campuses of UKZN with an enrolment target of 120 and 200 respectively. In 2007 some strategic changes were made to the SFP in order to obtain funding from the Department of Education (DoE) for the students registered for this programme. The effect of this change was that the **SFP** continued to be offered in its existing form to matriculants *without an exemption*. In addition to this the **BSc4 Foundation** programme comprised of the same courses as the SFP but

was also attached to a three year BSc degree and was offered to students *with exemptions*, thus meeting the DoE requirements for funding. Apart from the matric exemption, the same entrance and proceed requirements apply to both the SFP and the BSc4 Foundation programmes. For the purposes of this study both groups of students are combined and will be referred to as the Foundation Programme students.

In recent years the Foundation Programme has not met its enrolment targets on the Pietermaritzburg campus despite an awareness of the problem and concerted efforts to attract more applicants. The growth and decline in the enrolment figures of the Foundation Programme from 1991 to 2011 is seen in Graph 1.1

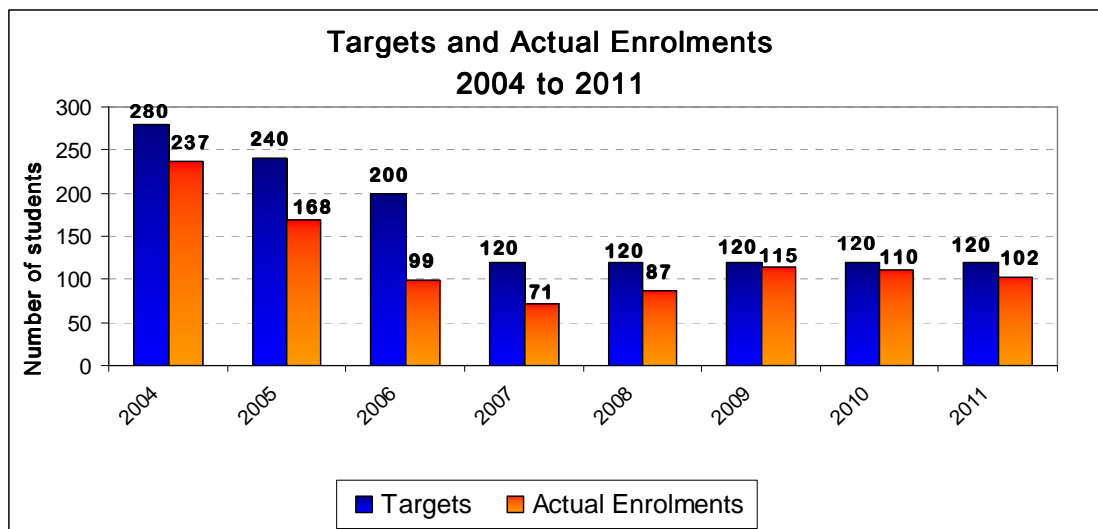
Graph 1.1: Enrolment Figures of SFP and BSc4 Foundation from 1991 to 2011 for Pietermaritzburg



Source: (Faculty of Science and Agriculture, 2011)

Although slight growth from 2007 to 2011 took place this was not sufficient to meet the enrolment target as can be seen in Graph 1.2.

Graph 1.2: Targets and Actual Enrolments of the Foundation Programme from 2004 to 2011



Source: (Faculty of Science and Agriculture, 2011)

This problem of unmet targets for the Foundation Programme at the Pmb campus of UKZN is the crux of this study. The researcher wishes to investigate the reasons or factors contributing towards the CSA not meeting their enrolment targets and the decline in numbers for this programme on the Pietermaritzburg campus.

The decision about where to attend university is a difficult task for most high school pupils as it is a highly involved decision which often affects their future life path (Veloutsou, Lewis and Paton, 2004, p.160). Adding to the complexity of this decision is the current reality of consumers being overloaded with information about various products and services (Kotler and Armstrong, 2004, p.259). Kotler and Armstrong (2004, p.259) explain that consumers deal with this by organising products and services into categories and ‘position’ them in their minds. “Positioning refers to both the place a product or brand occupies in customers’ minds relative to their needs and competing products or brands, and to the marketer’s decision making intended to create such a position.” (Walker, Mullins, Boyd and Larreche, 2006, p.154). The overload of information is no exception when it comes to the educational service. Bunzel (2007, p.152) proclaims that universities are also using corporate marketing strategies in order to improve their ranking. In operating and surviving in such a competitive environment some universities are also choosing to follow the advise of Kotler and Armstrong (2004, p.259) who suggests that they plan positions that will give their products the greatest advantage in the selected markets. The Foundation Programme at UKZN also operates in a competitive environment as a result of both internal and external factors. Thus the

positioning of the Foundation Programme is the marketing framework that is underpinning this study to help understand the problem of the unmet enrolment targets.

This study seeks to investigate how the programme is positioned with its target market and whether the needs of access students are being met. It will also include an analysis of the competition, advertising strategies and possible influencing factors such as the financial aid, the merger and the introduction of the Augmented programme.

1.3 Research Question

What factors contribute towards the Foundation Programme at UKZN not attracting sufficient applicants to meet its enrolment targets on the Pietermaritzburg campus?

1.4 Research objectives

The research objectives of this study are to:

1. Identify determining dimensions, i.e. what attributes are used by scholars when choosing an access programme and university
2. Determine how various products rate on those dimensions to determine how the Foundation programme is positioned within the target market relative to competing programmes
3. Assess whether the needs of access students are incorporated into the way the programme is positioned
4. Identify the perceptions of the target market on the CSA's marketing communication
5. Examine the effect of Financial Aid, or the lack thereof, on the perceptions of the target market
6. Evaluate the effect of the merger on the perceptions of the target market
7. Critically evaluate the impact of the introduction of the Augmented programme on the numbers

1.5 Anticipated Contribution

The Department of Education has placed huge emphasis on Foundation programmes and have also put much money into them. The Minister of Education in 1995, Professor SME Bengu (Department of Education, 1995, p.1) stated that education and training is important to humanity. They have an

impact on every family as well as the state and success of our national economy. The Department of Education acknowledged that it will be necessary to accelerate the provision of bridging and access programmes within further education, but the learning deficits are so widespread that systematic changes in higher education programmes (pedagogy, curriculum and the structure of degrees and diplomas) will continue to be needed (Department of Education, 1997, chapter 2, paragraph 32). This study may help guide their decisions regarding Foundation Programmes across the country by understanding what potential students look for in an access programme. This study may also help institutions that have, or are planning to introduce, a Foundation programme as meeting their enrolment targets will be a major concern for them. Mostly this study will benefit the CSA at the University of KwaZulu-Natal which is the focus of this study, to ascertain the position the UKZN Foundation programme occupies in the minds of potential students and reposition the Foundation programme if necessary.

1.6 Overview of the dissertation

Chapter 2 includes the theory of positioning. It was important to cover the theory of positioning as this is the underlying theoretical background which this study was based on and guided by. It begins by providing an understanding of positioning in the marketing strategy. Also covered in this chapter are positioning and the competitive advantage, the importance of positioning, bases for positioning and the positioning process. A discussion of techniques in positioning research and positioning in the marketing mix is also included.

Chapter 3 focuses on services and education as a service. The definition and characteristics of services are discussed. This is followed by the marketing strategy for services and the services marketing mix. This chapter ends with a discussion of positioning of a university. The services theory was important as services have unique characteristics which impact on the marketing strategy used and the research problem here included a service offering.

Chapter 4 provides the context for this study which is science access education in South Africa. It begins with the history of science access education in South Africa and is followed by a discussion of foundation or access programmes for science education and competition. An overview of the Foundation Programme within the Centre for Science Access (CSA) at the University of KwaZulu-Natal (UKZN) is provided. This is followed by a discussion of the issues related to the problem statement for this study: the merger between the University of Natal and the University of Durban Westville, financial assistance for access students, the needs of access students and the introduction

of the Augmented Programme. The marketing strategy of the Foundation Programme is also discussed. Other research done on access programmes is considered. Finally the problem for this study is discussed.

This dissertation includes two research methodology chapters, of which Chapter 5 is the first. The reason for this is that a triangulation method has been used for this study. The data collection consisted of two stages: qualitative research which included focus groups (Stage 1) and quantitative research which includes questionnaires (Stage 2). The findings of the qualitative research provided input into the methodology of the quantitative stage. Chapter 5 presents the statement of the problem, the research question and objectives. It then goes on to deal with the research design which includes the overall triangulation approach taken. The sample design for this study is described. Following this the interview guide, data collection and analysis for Stage 1 and ethical considerations are discussed.

Chapter 6 is the presentation of the findings and the discussion for Stage 1: the qualitative research of this research. This chapter was structured according to the focus group guide. The findings of Stage 1 was used to develop the written questionnaire used for Stage 2 of the research.

Chapter 7 deals with the research methodology for Stage 2 of this study: the quantitative research. It begins with a discussion of the quantitative research design. The questionnaire used for Stage 2 is then discussed in detail. The pilot questionnaire is discussed. This is followed by a discussion of the data collection and data analysis for Stage 2. This chapter also addresses issues of reliability, validity and ethical considerations.

Chapter 8 includes a presentation of the findings for Stage 2 of this study. The findings are structured according to the written questionnaire. It includes a brief discussion of the results.

Chapter 9 presents a detailed discussion of the findings and conclusions to this research. It is structured according to the objectives set for this study and the main research question.

In Chapter 10 recommendations are made to improve the positioning of the Foundation Programme at UKZN. They are based on the findings of this study and are addressed to the UKZN policy makers and the Department of Education but mainly to the managers of the CSA.

Chapter 11 addresses the limitations for this study and provides recommendations for future research.

Chapter 2: Positioning Theory as a Theoretical Framework for the Research

2.1 Introduction

This chapter on positioning provides the core theoretical background that is relevant for, and guiding this study. This chapter provides a detailed look into the concept of positioning. Related to the positioning concept are issues concerning consumer behaviour and these theories are discussed in relation to the positioning concept.

Understanding consumer perceptions is important strategically, as it helps management to evaluate their current positioning strategy and make changes to it (Cravens, 2000, p.120). Consumers' buying behaviour is affected by their perceptions and is thus crucial for an organisation's positioning strategy. "Positioning is the image the product or service has in the mind of the consumer" (Walker *et al.*, 2008, p.150).

2.2 Positioning in Marketing Strategy

Day (1995, p.27) states that marketers agree that marketing should play a leading role in charting the strategic direction of a business. According to Cravens, (2000, p.31) "strategic marketing is a market-driven process of strategy development that takes into account a constantly changing business environment and the need to achieve high levels of customer satisfaction".

Biggadike (1995, p.17) concludes that "segmentation and its counterpart positioning, must rank as marketing's most important contributions to strategic management".

Once the market has been segmented and target marketing has been done the next stage, i.e. market positioning can take place. The consumer buying behaviour feeds into the positioning process. Understanding consumer perceptions is important strategically, as it helps management to evaluate their current positioning strategy and make changes to it (Cravens, 2000, p.120). Consumer's perception influences the positioning of a product or service, i.e. how they view it and their perceptions influence their buying behaviour.

Perceptions play an important role in a consumer's buying behaviour. "The mind is constantly under attack" (Trout and Rivkin, 1996, p.3). Technological developments have contributed towards individuals being constantly overloaded with information concerning just about anything from an

increasing number and variety of media. “Even the human body has become a billboard for Adidas, Gucci etc.” leaving the mind with numerous images and messages to contend with Ries and Trout (2001, p.15). Ries and Trout (2001, p.6) argue that we have become a ‘over-communicated society’.

Trout and Rivkin (1996, p.8) argue that the success or failure of business efforts are dependant on understanding the following mental elements in the positioning process:

- Minds are limited
- Minds hate confusion
- Minds are insecure
- Minds don’t change
- Minds can lose focus

These limitations of the human mind lead to the conclusion that the mind cannot cope with all the images and messages it is presented with. “People are thus blocking out more and more information” which presents a challenge for the marketer who is trying to advertise his/her product or service (Trout and Rivkin, 1996, p.8). These challenges of the mind bring one to a major part of marketing strategy which is positioning.

Ries and Trout who “popularised positioning” (Walker *et al.*, 2006, p.154) claim that “positioning at its core is all about understanding the psychology of the mind and how you can manipulate perceptions to make whatever you’re selling more attractive and unique” (Ries and Trout, 2001, preface). Since then there have been many definitions of positioning in the marketing literature.

Doyle’s (1983, cited in Brooksbank, 1994, p.10) definition of a positioning strategy “refers to the choice of target market segment which describes the customers a business will seek to serve and the choice of differential advantage which defines *how* it will compete with rivals in the segment”. This is echoed by Kotler and Armstrong (2008a, p.63) who define market positioning as “arranging for a product to occupy a clear, distinctive, and desirable place relative to competing products in the minds of the target consumers”. “Positioning is the image the product or service has in the mind of the consumer” (Schiffman and Kanuk, 1997, p.171). Walker *et al.* (2011, p.154) state that “positioning refers to both the place a product or brand occupies in customers’ minds relative to their needs and competing products or brand, and to the marketer’s decision making intended to create such as position”. Kotler and Armstrong (2004, p.259) define a product position as “the way the product is defined by consumers on important attributes – the place the product occupies in the

consumer's minds relative to competing products". Arnot (1993, cited in Blankson and Kalafatis, 1999, p.109) defines "positioning as the deliberate, proactive, iterative process of defining, measuring, modifying and monitoring consumer perceptions of a marketable object". Ries and Trout (1981, p.219) state that "positioning is thinking in reverse, instead of starting with yourself, you start with the mind of the prospect, instead of asking what you are, you ask what position you already own in the mind of prospect" (cited in Ibrahim and Gill, 2005, p.174).

2.3 Positioning and Competitive Advantage

Brooksbank (1994, p.10) divides the positioning strategy into 3 interrelated subcomponents:

- Customer targets
- Competitor targets
- Competitive advantage

Schiffman and Kanuk (2010, p.186) state that because there is so much information that individuals are exposed to today marketers have to stand out by creating a distinctive product image in the mind of the consumer.. "Create an image for your company or your competitors will do it for you" is the advice given by Keever (1998, cited in Ivy, 2001, p.276). From the above discussion one can see the importance of a positioning strategy.

A company can gain competitive advantage by positioning itself as "providing superior value... either through lower prices or by providing more benefits that justify higher prices" (Kotler and Armstrong, 2004, p.259) thus differentiating the firm from its competitors. Michael Porter (cited in Walker *et al.*, 2011, p.155) states that a company can succeed against its competitors only if it can establish a sustainable difference. Hawkins, Mothersbaugh and Best (2007, p. 348) states that these differences must also be meaningful to the consumers.

Kotler and Armstrong (2008a, p.223) advise companies to carefully select the ways in which they will distinguish themselves from competitors and suggest the following criteria to decide whether the difference is worth establishing:

- *Important*: The difference delivers a highly valued benefit to target buyers.
- *Distinctive*: Competitors do not offer the difference, or the company can offer it in a more distinctive way.
- *Superior*: The difference is superior to other ways that customers might obtain the same benefit.

- *Communicable*: The difference is communicable and visible to buyers.
- *Pre-emptive*: Competitors cannot easily copy the difference.
- *Affordable*: Buyers can afford to pay for the difference.
- *Profitable*: The company can introduce the difference profitably.

Walker *et al.* (2006, p.155) state that effective positioning includes creating both physical and perceptual differences. The limitation of physical positioning alone is that it does not provide a complete picture of relative positions (Walker *et al.*, 2008a, p.155). Consumers are buying the benefits a product provides, for example, a headache remedy may be judged on what it *does* rather than what it *is* (Walker *et al.*, 2008a, p.156). Therefore perceptual positioning is critically important as positioning ultimately occurs in consumer's minds (Walker *et al.*, 2006, p.156).

In a world filled with conflicting messages brands help by being a kind of shorthand to tell the good from the not-so good (Braun, 2004, p.20). "They act as signposts in a busy marketplace, clustering values and characteristics together in recognisable packages we regard with different levels of trust or approval" (Braun, 2004, p.20).

McDonald and Payne (2004, p.146) state that branding plays an important role in value creation and can also help support the positioning strategy that has been determined for the service organisation.

Thus to gain competitive advantage a company needs to differentiate itself by choosing an appropriate positioning strategy.

2.4 Importance of Positioning

Dibb and Simkin (1992, p.31) and Walker and Mullins (2011, p.154) emphasise the critical value of positioning and point out that "a position of the product is dependent on how its consumers perceive its standing, its quality, the types of consumers who use it, its strengths and weaknesses, memorable characteristics, price and value, promoted image and value".

Schiffman and Kanuk (1997, p.171) claim that "positioning strategy is the essence of the marketing mix, it compliments the company's segmentation strategy and selection of target markets. Similarly Kalafatis, Tsogas and Blankson (2000, p.416) acknowledge the "general agreement that positioning has become one of the fundamental components of modern marketing management".

According to Brooke (1994) a product may be inadequately positioned due to the following reasons (cited in Ostaseviciute and Sliburyte, 2008, p. 101):

- “the segment in which it is targeted might have become unattractive because it is too small, declining, too competitive or otherwise unprofitable,
- the quality and features of the product do not appeal to the segment to which it is targeted or
- the product costs are too high to allow it to be priced competitively”.

Thus positioning plays an important role in the success of a product or service.

2.5 Bases for Positioning

Dibb and Simkin (1992, p.27) suggest four dimensions which were identified by Doyle (1990) to use as strong branding for services:

- *Prioritise quality*. High quality is a leading factor among leading brands in all sectors. This was also supported by Walker *et al.* (2006, p.234) and Etzel, Walker and Stanton (2001, p.244)
- *Offer superior service*. Brand switching is often a result of customers being dissatisfied with services
- *Get there first*. Based on the product life cycle principle being the first can help you capture the market before competitors enter.
- *Be different*. Being different allows you to stand out amongst your competitors and special needs of the consumer.

Some bases that can be used to differentiate one product from other include a brand, product descriptors, customer support services and image (Ferrell Hartline, Lucas, and Luck , 1998, p.104).

Peter and Olson (2005, p.392-394) suggest five approaches for a positioning strategy:

- positioning by attribute. Positioning by attribute includes the product or customer feature for example, the safety and durability of a Volvo (Peter and Olson, 2005, p.392).
- by use or application. An example of the use or application positioning strategy is baking power being positioned as an odour destroying agent in refrigerators (Peter and Olson, 2005, p.392).
- by product user
- by product class and by competitors.

Some examples of positioning strategies suggested by Kosnik (1989 cited in McDonald and Payne, 1996, p.102) are included in the Table 2.1:

Table 2.1: Examples of Positioning Strategies

Market share leader	The biggest
Quality leader	The most reliable products/services
Service leader	The most responsive, e.g. handling problems
Technology leader	The pathfinder/first to break new ground
Innovation leader	The most creative
Flexibility leader	The most adaptable
Relationship leader	The most committed
Prestige leader	The most exclusive
Knowledge leader	The best functional/technical expertise
Global leader	The best positioned for world markets
Bargain leader	The lowest price
Value leader	The best price utility

(Kosnik , 1989 cited in McDonald and Payne, 1996, p.102)

Thus companies can choose from a number of approaches for their positioning strategy.

2.6 The Positioning Process

McDonald and Payne (1996, p.99) put forth the service positioning process in five steps:

1. Determine levels of positioning
2. Identify key attributes which impact on selected segments
3. Locate these attributes on a positioning map
4. Evaluate other positioning options
5. Implement the new positioning strategy

Walker *et al.* (2011, p.158-168), include other aspects and illustrate positioning as a 7 step process which can be used for products and services:

1. Identify relevant set of competitive products serving a target market
2. Identify the set of determinant attributes that define the 'product-space' in which positions of current offerings are located

3. Collect information from a sample of customers and potential customers about perceptions of each product on the determinant attributes
4. Determine product's current location (positioning) in the product space and intensity thereof
5. Determine customers' most preferred combination of determinant attributes
6. Examine the fit between preferences of market segments and current position of product (market positioning)
7. Write positioning statement or value proposition to guide development and implementation of marketing strategy

These seven steps are discussed below in more detail and will be applied to the Foundation Programme at the University of KwaZulu-Natal.

Walker and Mullins (2011, p,158) state that positioning analyses are useful at many levels: company, business unit, product category and specific product line or brand.

- At company or business-unit level the analysis helps to determine how the company or business unit is positioned relative to its competition (Walker and Mullins, 2011, p,159).
- At product category level the analysis examines customer's perceptions about types of products they might consider as substitutes to satisfy the same basic need (Walker and Mullins, 2011, p,159). Porter (1995, p.119) advises that the substitutes that need most attention are those that a) are subject to improving their price-performance and b) are produced by industries earning high profits.
- A positioning analysis at product or brand level can help understand how various brands appeal to customers, to position new products or reposition current ones and identify where new competitive opportunities might be found (Walker and Mullins, 2011, p,159).

Step 1: Identify relevant set of competitive products serving a target market

According to Walker and Mullins. (2011, p.160) identifying the competitive products, whether they be substitute products or potential competitors, can help prevent being blindsided by unforeseen competition. Thus the competing products can be seen as choices the consumer has to meet the same need, either through a substitute product or through a competitor. This step does not include the particular features of the product which step 2 refers to.

Step 2: Identify the set of determinant attributes that define the 'product-space' in which positions of current offerings are located

Consumers can use many attributes to evaluate products or brands (Walker and Mullins, 2011, p.160). According to Walker and Mullins (2011, p.160) there can be confusion when too many variables are used to position a product and therefore the positioning effort must be kept as simple as possible. Marketers should stick to the determining attributes, i.e. those which help consumers differentiate amongst the alternatives and determine which product or service they prefer (Walker and Mullins., 2011, p.161). According to Aaker (2005, cited in Ostaseviciute and Sliburyte, 2008, p.99) “determinant attributes define not only the product benefits and value to the user but also associations with the product-consuming process and with the consumer himself”. In other words the important or significant features are also in relation to how the consumer obtains the product and with the consumers’ needs. Hawkins *et al.* (2007, p.570) state that “attribute-based choices require the knowledge of specific attributes at the time the choice is made, and it involves attribute by attribute comparisons across brands”. For example when a car is being purchased the consumer would have knowledge of features such as fuel consumption, engine size, comfort, interior features and boot space etc. and the various brands such as Toyota, Volkswagen, Ford etc would be compared. Valuable attributes are those that are unique, essential, of a high quality and affordable (Kotler, Armstrong, Saunders and Wong, 2003, cited in Ostaseviciute and Sliburyte, 2008, p.100).

Step 3: Collect information from a sample of customers and potential customers about perceptions of each product on the determinant attributes

In this step Walker and Mullins (2011, p.161) explain that the marketer needs to find out what attributes are determinant for the target market and product category being considered. The marketer also needs to know how the different products in the competitive set rate on these attributes (Walker *et al.*, 2006, p.161). This information can be obtained through qualitative research (e.g. interview and focus groups) showing which attributes are determinant (Walker and Mullins, 2011, p.161). This is then followed by quantitative research to determine how competing products score on these attributes (Walker and Mullins., 2011, p.161). McDonald and Payne (1996, p.99) point out that consumers make their purchase decision on the basis of perceived differences between competing offers. The determinant attributes refer to aspects or features of a product or service that are most important to a particular target market. For example, in an educational service which is a degree at a university the determinant attributes could be highly qualified lecturers and state of the art facilities. These attributes would be what the customer uses when comparing each university offering this service.

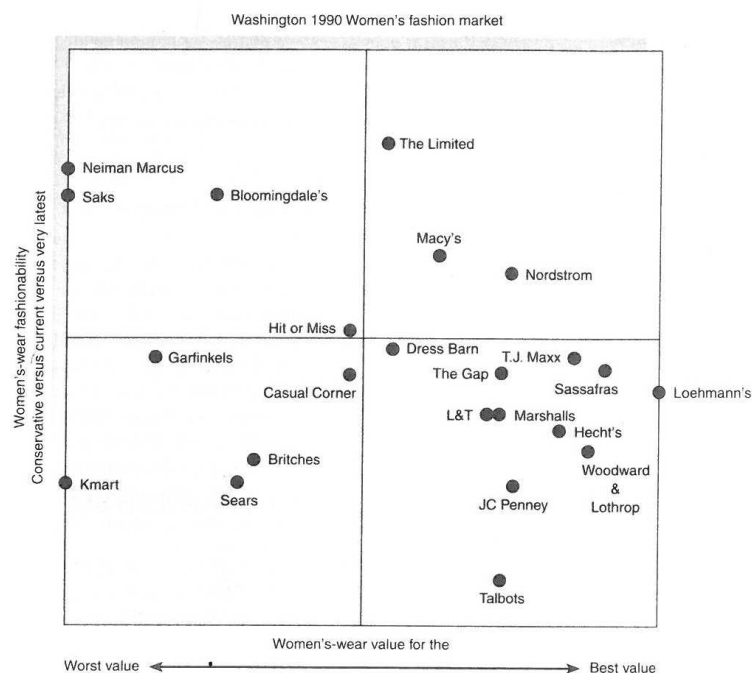
Step 4: Determine the product's current location (positioning) in the product space and intensity thereof

According to Walker and Mullins (2011, p.162), the positioning of the products that were determined to be in the competitive step under step 1 must be understood and the tools available to do this are the perceptual map (also known as the positioning grid) and the value curve. The perceptual map provides a visual representation of the positions of various products or brands in the competitive set using two determinant attributes (Walker and Mullins, 2011, p.162). Whilst the value curve comprise more than two determinants (Walker and Mullins, 2011, p.162).

The Perceptual Map

Two determinant attributes using the X and Y grid, which reflect key customer preferences are used on the perceptual map (McDonald and Payne, 1996, p.100). In the example of Figure 2.1 which looks at woman's clothing, the two determinant attributes are **Value** and **Fashionability**.

Figure 2.1: Perceptual Map



(Walker *et al.*, 2006, p.162)

The competing stores are then plotted in a position which indicates the perceived level they offer on both these attributes. The form of this data shows how products or services compare at a glance (McDonald and Payne, 1996, p.100). The perceptual map also provides useful information about

possible opportunities for launching a new store or for the repositioning an existing one (Walker and Mullins, 2011, p.162). Gaps, which in this example, appears in the upper right quadrant, may represent an opportunity for developing a new entry or repositioning an old one (Walker and Mullins, 2011, p.162). According to McDonald and Payne (1996, p.101) these maps can also indicate an area of core demand which will be the most attractive combination for customers.

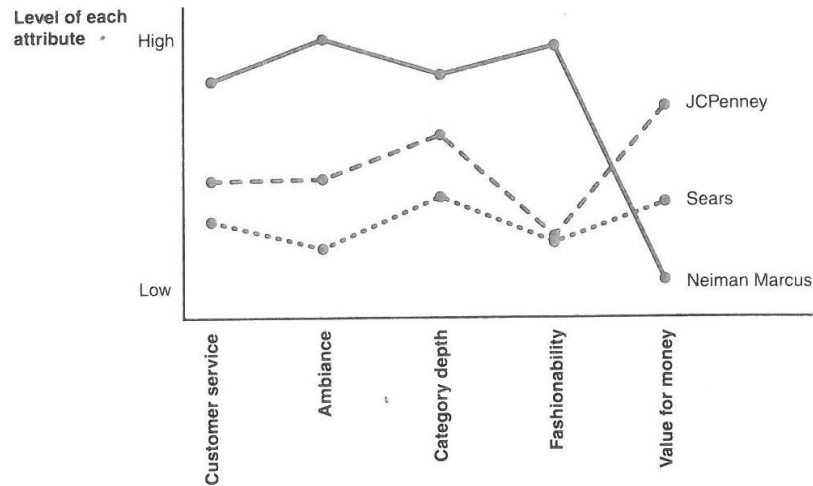
Further reasons given by Arora (2006) as to why the perceptual maps are such powerful tools (Ostaseviciute and Sliburyte, 2008, p.100) include:

1. It develops understanding of how the relative strengths and weaknesses of different products are perceived by buyers;
2. It builds knowledge about the similarities and dissimilarities between competing products and 3) the technique helps to track the perceptions that buyers have of a particular product, and assists the measurement of effective communication programs, and marketing actions, intended to change buyer perceptions.

Value Curve

The Value curve is another tool available for the positioning decision. Unlike perceptual maps which are two dimensional, value curves are multidimensional (Walker and Mullins, 2011, p.163). Value curves indicate how products within a category compare in terms of the level: high or low, of as many attributes as are relevant (Walker and Mullins, 2011, p.163). In the example in Figure 2.2 the value curve also shows that “JCPenny chooses to compete by reducing its level of customer service, ambiance, category depth and fashionability presumably to deliver increased value for money” (Walker *et al.*, 2006, p.163).

Figure 2.2: Value Curve



(Walker *et al.*, 2006, p.163)

2.7 Techniques in Positioning Research

Other analytical tools for decision making in positioning research suggested by Walker *et al.* (2011, p.162-172) include conjoint analysis, factor analysis and discriminate analysis and multidimensional scaling.

The “conjoint analysis determines which combination of a limited number of attributes consumers most prefer” (Walker *et al.*, 2011, p.165). Walker *et al.* (2008, p.166) suggest that this is more useful for new products as it cannot provide information on how consumers perceive existing products. Factor analysis is a statistical technique used for developing positioning grids based on marketing research data (Walker *et al.*, 2008, p.166). Discriminate analysis “determines consumer’s perceptual dimensions on the basis of which attributes best differentiate or discriminate among brands” (Walker *et al.*, 2008, p.166). Multidimensional scaling comes up with dimensions based on consumers’ judgements about the similarity of or their preferences for the actual brands (Walker *et al.*, 2008, p.166).

For this study the researcher chose to use the value curve and perceptual maps. This study included a number of competing institutions with a range of dimensions. These were thus sufficient for what the researcher was trying to achieve.

Step 5: Determine customers' most preferred combination of determinant attributes

Customer preferences can be measured by surveying respondents and asking them to think of the ideal product or brand within a product category (Walker and Mullins, 2011 p.165). Respondents could then rate their ideal product and existing products on a number of attributes (Walker and Mullins, 2011, p.165). Alternatively a conjoint analysis statistical technique can be used to learn which attributes are more important than others to the consumer (Walker and Mullins, 2011, p.165).

Step 6: Examine the fit between preferences of market segments and the current position of product (market positioning)

According to Walker and Mullins. (2011, p. 166), “because differences between customer’s ideal points reflect variations in the benefits they seek, a market positioning analysis can simultaneously identify distinct market segments as well as the perceived positions of different brands”. By looking at the clusters in one, two or more locations on the map of the customer’s ideal points, distinct market segments can be considered and is represented by a circle (Walker and Mullins, 2011, p. 167). The size of the circle represents the relative proportion of customers within a particular segment (Walker and Mullins, 2011, p. 167). Walker and Mullins, (2011, p.167) state that by examining the preferences of customers in different segments along with their perceptions of the positions of existing brands, analysts can learn much about:

- The competitive strength of different brands in different segments
- The intensity of the rivalry between brands in a given segment and
- The opportunities for gaining a differential position within a specific target segment.

Step 7: Write a positioning statement or value proposition to guide the development and implementation of marketing strategy

According to Walker and Mullins (2006, p.168) the final decision about where to position a new brand or reposition an existing one should be based on the market targeting analysis and the results of a market positioning analysis. The position chosen should match the preferences of a particular market segment and should take into account the current positions of competing brands (Walker and Mullins, 2011, p.168).

McDonald and Payne (1996, p.101) suggest 3 broad options for positioning:

1. Strengthen current position against competitors.
2. Identify an unoccupied position on the map, or
3. Reposition the competition.

In deciding which of the above options to choose the positioning should be meaningful, believable and unique (McDonald & Payne, 1996, p.102).

According to Walker and Mullins (2006, p.168) once the desired positioning for the product has been determined it should be written up especially so that those responsible for implementing the strategy can have a clear understanding of it. Two approaches to do this are through the **positioning statement** and the **value proposition**.

Kotler and Armstrong (2004, p.265) state that a positioning statement should summarise the company or the brand positioning and take this form:

To (target segment and need), our (brand) is (concept) that (point-of-difference).

An example to illustrate this is a positioning statement for Volvo: “For upscale American families, Volvo is the automobile that offers the utmost in safety” (Walker *et al*, 2008, p168).

A value proposition is the full positioning of a brand - the full mix of benefits upon which it is positioned (Kotler and Armstrong, 2004, p.262). It should answer the customer’s question: why should I buy your brand? (Kotler and Armstrong, 2004, p.262). Walker and Mullins (2011, p.169) state that a value proposition should include:

- Target market
- Benefits offered (and not offered)
- Price range (relative to competitors)

Walker and Mullins (2011, p.169) emphasise that the positioning statement or value proposition need to state the benefits that the user of the product will obtain rather than the features or attributes of the product itself.

“Once the company has chosen a position, it must take strong steps to deliver and communicate the desired position to target consumers” (Kotler and Armstrong, 2004, 267). The company, its staff, its policies and image all need to convey a consistent message which reflects the desired position (McDonald and Payne, 1996, p.102). The practical aspects of the positioning strategy include the planning of the marketing mix, the product, price, place and promotion (Kotler and Armstrong, 2004, p.267). Kotler and Armstrong (2004, p.267) advise that a company must take care to maintain the established position through consistent performance and communication. The company should

also closely monitor and adapt the position over time to match changes in consumers needs and competitors strategies (Kotler and Armstrong, 2004, p.268).

2.8 Positioning in the Marketing Mix

According to Cowell (1984, p.63) an essential element of any marketing strategy is the marketing mix. The origin of the marketing mix concept was described by Borden (1965) in a paper he wrote on the Management of Marketing Costs (Cowell, 1984, p.63). Borden (1965) referred to the business executive as a 'decider', an 'artist' and a 'mixer of ingredients'; one who is constantly engaged in fashioning creatively a mix of marketing procedures and policies in his efforts to produce a profitable enterprise (Cowell, 1984, p.63). The marketing concept dictates that marketing decisions should be based upon customer needs and wants (Kotler and Armstrong, 2004, p.14). Kotler and Armstrong (2004, p.6) state that buyers purchase goods and services to satisfy their needs and wants. The marketing mix is the convenient means of organising all the variables controlled by the marketer to produce the response it wants in the target market (Kotler and Armstrong, 2004, p.56).

Kotler and Armstrong (2004, p.56) state that the marketing mix refers to a specific set of tools available to managers to help them shape the offer they present to consumers. According to Payne (1993, p.22) the task of the manager in developing the marketing programme is to assemble the elements of a marketing mix to ensure the best match between the internal capabilities of the company and the external market environment. A key issue in the marketing programme is the recognition that the elements of the marketing mix are largely controllable by managers within the organisation and that the market forces in the external environment are to a large extent uncontrollable (Payne, 1993, p.22). The success of a marketing programme depends primarily on the degree of match between the external environment and the organisation's internal capabilities (Payne, 1993, p.22).

The traditional marketing mix is composed of four P's: product, price, place (distribution) and promotion (Zeithaml and Bitner, 2003, p.23).

2.9 Conclusion

As seen in the discussion above, positioning plays a vital role in a company's marketing strategy. Positioning a service is a challenging task because of the unique problems related to the characteristics of a service and thus these need to be considered in the positioning strategy.

Understanding consumer perceptions is important strategically, as it helps management to evaluate their current positioning strategy and make changes to it (Cravens, 2000, p.120). Thus understanding consumers' behaviour and their perceptions are crucial for an organisation's positioning strategy.

The critical value of positioning is emphasised by Walker *et al.* (2008, p.150) who point out that a position of the product or service is dependent on how consumers perceive its reputation, its quality, its strengths and weaknesses, memorable characteristics, price and value or benefits it offers. Positioning is therefore an essential marketing strategy for management to be aware of and practice especially as they are responsible for making decisions for a company's success and survival in a competitive environment.

In "playing the positioning game" Ries and Trout (2001, p.201-210) believe that:

- You must understand the role of words
- You must know how words affect people
- You must be careful of change
- You need vision
- You need courage
- You need objectivity
- You need simplicity
- You need subtlety
- You must be willing to sacrifice
- You need patience
- You need a global outlook

This chapter looked at the positioning theory as a theoretical framework for this research. The positioning theory was used to find answers to the research problem of why the Foundation Programme has not met its enrolment targets. Understanding what 'image' the target market has of the Foundation Programme at UKZN impacts on their decision of which university to attend. The Foundation Programme at UKZN is an educational service. The discussion in this chapter leads to the next chapter which focuses on services and in particular education as a service as positioning a service requires different strategies to that of positioning a product. The next chapter also discusses the positioning of a university, which is the crux of this study, in relation to what was found in literature.

Chapter 3: Services and Education as a Service

3.1 Introduction

The service sector has become a booming and growing industry since the Second World War (Kurtz and Clow, 1998, p.6 and McDonald and Payne, 1996, p.1). According to Kotler and Armstrong (2008a, p.256) services constitute 67% of the South African gross domestic product. The previous chapter discussed the positioning theory which was used as a theoretical framework for this study to provide answers for the unmet enrolment targets of the Foundation Programme at UKZN. This chapter looks at the marketing of a service in particular in relation to an education service. Positioning an educational service requires different strategies to positioning a product or other services. Thus this chapter first provides a discussion of the classification and characteristics of services. The services marketing mix is explained and this is followed by the positioning of a service. This chapter ends with a discussion of the positioning of a university which is the central focus of this study.

3.2 Definition of a service

McDonald and Payne (1996, p.10) provide the following definition of a service:

“A service is an activity which has some element of intangibility associated with it. It involves some interaction with customers or property in their possession, and does not result in the transfer of ownership. A change of condition may occur and provision of the service may or may not be closely associated with a physical product.”

In a more recent publication Kotler and Armstrong (2004, p.276) define a service as, “...a form of product that consists of activities, benefits, or satisfaction offered for sale that are essentially intangible and do not result in the ownership of anything”.

The above definitions can be better understood by looking at the characteristics of a service, which show how a service is different to a product.

3.3 Characteristics of Services

According to Shaik, (2005, paragraph 6), education is a service and students are the prime focus of the institution. Shaik (2005, paragraph 6) states that services are said to have characteristics different to that of products in that they are intangible, inseparable, heterogeneous, and perishable.

A further characteristic of a service is ownership (Shaik, 2005, paragraph 6). Education is indeed a service. The following discussion looks at education in terms of these characteristics.

Intangible

Education has the characteristic of being intangible. According to Palmer (2011, p.7), Kotler and Armstrong (2008a, p.256) and Ziethaml and Bitner (2003, p.20) services cannot be seen, felt, tasted or touched in the same manner that one can sense tangible goods. Education cannot be seen, tasted or touched. The results of education may be visible in the works or ideas that an individual produces or decisions they make but education itself cannot be seen. It is something is kept in a person's mind. For example, when assessing their education choices at tertiary level prospective students cannot see, taste or touch the education they will receive. It is intangible. What is related to them are the benefits of education, i.e. the careers they can go on to, the jobs that they would be qualified for etc. Ivy and Naude' (1999) (cited in De Jager and Du Plooy, 2006, p.11) state that students are not buying degrees, they are buying the benefits that the degree can provide in terms of employment, status and lifestyle. To reduce uncertainty, Kotler and Armstrong (2008a, p.257) suggests that buyers look for 'signals' of service quality. They draw conclusions about the quality from the place, people, price, equipment and communications that they can see.

Inseparable

Education is also inseparable. According to Palmer (2011, p.9) and Kotler and Armstrong (2008a, p.256) service inseparability means that services cannot be separated from their providers, whether the providers are people or machines. In education there is a teacher and a learner. The "teacher" can be a person, technology such as the internet or even a book. Both the "teacher" and the learner need to be present for education to take place. Even distance education requires a "teacher" and a learner.

Hetrogeneous

Education has the characteristic of being heterogeneous. Palmer (2011, p.10) and Kotler and Armstrong (2004, p.299) states that heterogeneity also referred to as service variability, means that the quality of services depend on who provides them as well as when, where and how they are provided. According to Ziethaml and Bitner (2003, p.21) heterogeneity also results because no two customers are precisely alike, each will have unique demand or experience the service in a unique way. For example, the same topic taught by the same university lecturer is impossible to be exactly the same. Human elements in the lecturer such as being tired, de-motivated or still recovering from

some bad family crisis will influence the service. The students may also be different from one setting to another as their previous knowledge, enthusiasm towards the course etc may also be different and this will influence the service being delivered. Solomon and Stuart state that Professors vary so much in their training, their life experiences and their personalities that there is little hope of teaching uniform and students with different backgrounds and interests vary in their needs, so that the lecture that one group finds fascinating might be slept through by another (Solomon and Stuart, 1997, p.370).

Perishable

According to Palmer (2011, p.11), Kotler and Armstrong (2008a, p.257) and Zeithaml and Bitner (2003, p.22) perishability refers to the fact that services cannot be saved, stored, resold or returned. Education is also perishable in nature. For example, if a course at a tertiary institution does not attract enough applicants it cannot be saved or stored for another time. Once education is bought it also cannot be resold.

Ownership

The ownership characteristic of a service can also be seen in education. Palmer (2011, p.13) and Cowell (1984, p.26) states that the lack of ownership is a basic difference between a service industry and product industry because a consumer may only have access to or use of a facility. For example, when purchasing the education service, the student does not own the university or the lecturer or the teaching aids.

The characteristics of education as discussed above illustrate how education is in fact a service. Gordon and Partington (1993) offer a relatively generalised definition of educational quality as “the success to which the institution enables students to achieve worthwhile learning goals” (Saunders, 2005, p.146). According to Saunders (2005, p.146) “the educational sector has a number of different stakeholders to whom service quality is important, i.e. students, government, society, staff and parents, with all these stakeholders having different perceptions and expectations”.

3.4 Marketing Strategy for Services

Services are very different to products as can be seen in the above discussion. It is therefore important that the unique properties of services are considered when planning a marketing strategy.

3.4.1 Positioning a service

Webster (1991, cited in Kalafatis, Tsogas, and Blankson, 2000, p.416) states that the positioning theory can be equally applied to products and services. Many writers point out the unique problems regarding the positioning of services compared to physical goods because of the intangible characteristic of services (Palmer, 2011, p.7, Blankson and Kalafatis, 2007, p.436, Dibb and Simkin, 1992, p.25, Schiffman and Kanuk, 1997, p.171). Hoffman and Bateson (2006, p.195) state that the intangibility clouds the consumer's ability to differentiate one service provider's offering from the next. McDonald and Payne, (1996, p.96) believe that irrespective of what the company puts into its service product, it is the customer's perception which determines whether or not it is successful. For effective positioning of services it is suggested that one focus on "tangibilising" the service (Blankson and Kalafatis, 1999, p.109).

Peter and Olson (2005, p.392-394) and Kurtz and Clow (1998, p.336) recommend that a service can be positioned in six different ways: by the service attributes, use or application, price/quality relationship, service class and service user. Another way to position a service is relative to a competitor (Kurtz and Clow, 1998, p.336). This is important according to Kurtz and Clow (1998) as it helps the company know which other vendors are being considered by the consumer when they make their purchase decision. Further dimensions suggested by Zeithamal and Bitner (1996 cited in Blankson, 1999, p.112) for services to be positioned on include: the needs they satisfy, the benefits they deliver, specific service features, time of use and who uses it. For establishing the positioning of the Foundation Programme at UKZN the researcher deemed it appropriate to identifying important attributes of the Foundation Programme as well as identify the important needs of its target market.

As already discussed positioning of services can be more challenging because of their unique characteristics. Table 3.1 represents the service characteristics and their implications for marketing and positioning strategies:

Table 3.1: Service Characteristics and the implications for marketing and positioning strategies

Characteristic of Service	Marketing Implications	Positioning tactics and strategies
Intangibility	Sampling difficulty Strain on promotional element of marketing mix No patents possible Difficulty to judge price and quality in advance	Focus on benefits and attributes Increase tangibility of service Use brand names Use personalities to personalise service Develop reputation
Inseparability	Requires presence of producer Direct sale Limited scale of operations	Learn to work in larger groups Work faster Train more service providers
Heterogeneity	Standards depend on who and when provided Difficult to assure quality	Careful personnel selection and training Ensure standards are monitored Pre-package service Emphasise bespoke services
Perishability	Cannot be stored Problem with demand fluctuations	Match supply and demand effectively (e.g. reduce prices during off-peak)
Ownership	Customer has access to but not ownership of service activity or facility	Stress advantages of non-ownership (e.g. permit easier payment system)
Standardisation	Difficulty in consistency of service	Create uniformity. Instil company's ethos in personnel

Source: (adapted from Cowell, 1989 and Ellis and Mosher, 1993, both cited in Blankson and Kalafatis, 1999, p.108)

Although the positioning of services brings with it unique challenges, writers such as Shostack (1987) and Arnot and Easingwood (1994) (both cited in Blankson and Kalafatis, 1999, p.107)

believe that better strategies can be followed if positioning takes into account issues related to the complexity and variability of the service on an offer.

3.4.2 Services Marketing Mix

As seen in the discussion above services are very different to products and therefore require a different kind of management than that of products. In addition to the traditional marketing mix of the four P's, the service marketing mix includes people, physical evidence and process (Zeithaml and Bitner, 2003, p.24).

3.4.2.1 Product

Products, according to Palmer (2011, p.36) and McColl, Callaghan and Palmer (1998, p.19), are the means by which organisations seek to satisfy consumer needs. A product in this sense, is anything that the organisation offers to potential customers which may satisfy a need, whether it is tangible or intangible.

The service product requires consideration of the range of services provided, the quality of services provided and the level of services provided (Kotler and Armstrong. 2008a, p.257) Attention will also need to be given to matters like the use of branding, warranties and after-sale service (Cowell, 1984, p.71). As with goods, customers derive benefits and satisfactions from service products. Service products are bought and used for the benefits they offer and for the needs they fulfil and not for themselves (Cowell, 1984, p.99).

Payne (1993, p.125) states that a service product is a complex set of value satisfactions. According to Payne (1993, p.125), people buy services to solve problems and they attach value to them in proportion to the perceived ability of the service to do this. Value is assigned by the buyers in relationship to the benefits they receive (Payne, 1993, p.125).

Cowell (1984, p.99) suggests four levels in analysing the service product:

- *The consumers benefit concept.* Bateson (1977 cited in Cowell, 1984, p.99) argues that the consumer's view should be central to the shaping of any good or service offer. The consumer benefit concept is defined by Bateson as "a bundle of functional, effectual and psychological attributes". For example, in the education service, the degree will provide the consumer with benefits such as finding a job.

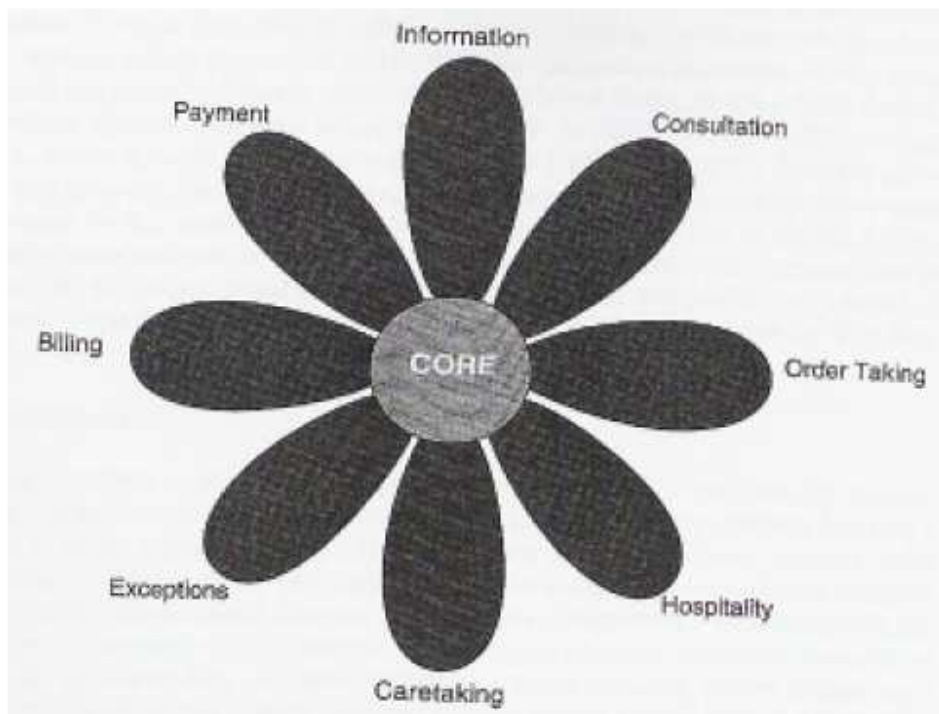
- *The service concept.* Palmer (2011, p.2) defines the service concept as the definitions of the general benefits the service organisation offers based on customer benefits sought. The questions; what business are we in? and what needs and wants do we attempt to meet? helps to explain this concept. For example, a car hire company such as Avis, offers the solution to consumers temporary transportation problems. Consumers need the benefit of temporary transport and Avis' key service offer is to provide a system of hiring vehicles to meet this need.
- *The service offer.* The service offer is concerned with giving more specific and detailed shape to the basic service concept notion (Palmer, 2011, p.13). The shape of the service offer stems from managerial decisions concerned with what services will be provided, when they will be provided, how they will be provided, where they will be provided and who will provide them (Cowell, 1984, p.103).
- *The service delivery system.* Two key elements of many service delivery systems are the people and the physical evidence (Cowell, 1984, p.110). Palmer (2011, p.37) explains that the people involved in service product performance and delivery include the organisation's own personnel. Physical objects consist of buildings, plant, equipment, tools, and the layout of the facilities and tangible elements of the service (Palmer, 2011, p.37). For example in a university this would include the teaching and administration staff as well as the lecture venues, laboratories etc.

Lovelock (1996, p.338) states that most manufacturing and service businesses, whether they are classified in government statistics as manufacturing or service, offer their customers a package, involving not only the core product but a variety of service-related activities.

Lynn Shostack developed a molecular model which uses a chemical analogy to help marketers visualise and manage what she terms the "total market entity" (Lovelock, 1996, p.339). Her model can be applied to either goods or services. At the centre is the core benefit, addressing the basic customer need, linked to a series of other service characteristics. She argues that as in chemical formulations, a change in one element may completely alter the nature of the entity. Surrounding the molecules are a series of bands representing price, distribution and market positioning (Lovelock, 1996, p.339).

Lovelock uses the concept of a 'Flower of Service' to illustrate the core product and the supplementary services (Lovelock, 1996, p.341) which is seen in Figure 3.1. He defined eight clusters as petals surrounding the centre of a flower. The eight clusters are classifications of supplementary services which include; information, order taking, safekeeping, billing, consultation, hospitality, exceptions and payment (Lovelock, 1996, p.341) According to Lovelock, the important issue is not how many petals the flower has, but ensuring that each petal is perfectly formed and adds lustre to the core product in the eyes of the target customers (Lovelock, 1996, p.359).

Figure 3.1: Flower of Service: Core Product Surrounded by Clusters of Supplementary Services



(Lovelock, 1996, p.343)

3.4.2.2 Price

Price decisions are strategic and tactical and concern the general level of prices to be charged, discount structures, terms of payment and the extent to which price discrimination between different groups of customers is to take place (Palmer, 2011, p.36 and McColl *et al.*, 1998, p.19). These decisions also affect the product manager.

The characteristics of services influence the prices set in the service market. Cowell (1984, p.148) discusses some of the impacts:

- *Service perishability.* The fact that services cannot be stored and that fluctuations in demand cannot be met as easily through using inventories has price implications. Special price offers and price reductions can be used to compensate for this effect. For example, an airline is built to accommodate a certain number of passengers irrespective of which time of year it is. Seats on flights not sold during off-peak seasons cannot be sold at another time. It cannot be stored away. In order not to lose the unsold seat, airlines should offer a lower price than the normal price so that the seat is sold.
- *Delay or postpone.* Consumers may delay or postpone the use of many services because they may be too busy, they may not be satisfied with the current price charged for the service and can wait for it to be performed etc. This leads to keener competition amongst the providers of these services.
- *Intangibility.* The intangible characteristic of services may mean that first time users have difficulty in understanding what they get for their money. Prices may be set based on costs of the material content which means that it can be set higher if there is a higher material content. It also means that services may be more varied than physical products. The service level, service quality and service quantity can be adjusted to meet particular customer requirements and would affect the price of the service.
- *Homogeneous.* Homogeneous services such as car washes and dry cleaners etc. will lead to highly competitive pricing. The seller has more discretion in varying the price when the service is more unique.
- *Inseparability.* The inseparability of services may create geographic and time limits on the markets that can be served. The degree of competition within an area will influence the prices charged.

Zeithaml and Bitner (2003, p.25) state that pricing becomes very complex in services where unit costs needed to calculate prices may be difficult to determine, and where the customer frequently uses price as a cue to quality. Zeithaml and Bitner (2003, p.484) therefore suggest that service prices must be determined carefully. In addition to being chosen to cover costs or match competitors, prices must be chosen to convey the appropriate quality signal as pricing too low can lead to inaccurate inferences about the quality of the service (Zeithaml and Bitner, 2003, p.484). Pricing too high can set expectations that may be difficult to match in the service delivery (Zeithaml and Bitner, 2003, p.484). Competition-orientated pricing although simpler, may not provide assurance of covering costs (Zeithaml, Parasuraman and Berry, 1985, p.38). Demand-orientated

pricing may be as difficult to implement as cost-orientated pricing and does not guarantee that costs will be covered (Zeithaml *et al.*, 1985, p.38).

3.4.2.3 Place

According to Palmer (2011, p.36), place decisions refer to the ease of access that potential customers have to a service. It also involves physical location decisions, decisions about which intermediaries to use in making a service accessible to a consumer and non-location decisions which are used to make services available (Palmer, 2011, p.36 and McColl *et al.*, 1998, p.20). Examples of these decisions include; where to place a hotel, whether a tour operator uses travel agents or sells its holidays direct to the customer and the use of telephone delivery systems (McColl *et al.*, 1998, p.20). Examples of place decisions in a university include location of campuses, laboratories, residences and various support services.

According to Cowell (1984, p.197), location may be irrelevant for services like households repairs, car breakdown services and utilities as they are performed where the customer is. The accessibility or availability to the customer for such services is critical when the service is required (Cowell, 1984, p.197). Some services are concentrated as is the case when status is associated with certain sites (Cowell, 1984, p.197). For example an area such as Umhlanga in Durban, which is considered to be an elite area, has many restaurants as there is a high demand for this. On the other hand services may also be dispersed as the nature of demand and the characteristics of the service may require dispersal into the marketplace, for example, when an institution is centralised but the operations are dispersed, i.e. business consultants visit specific customers (Cowell, 1984, p.197-198).

3.4.2.4 Promotion

The traditional promotional mix includes various methods of communicating the benefits of a service to potential consumers (Palmer, 2011, p.36). The four elements of promotion include advertising, sales promotion, public relations and personal selling (McColl *et al.*, 1998, p.19). According to Palmer (2011, p.36) and McColl *et al.* (1998, p.20) the promotion of services often needs to place a particular emphasis on increasing the apparent tangibility of a service.

Cowell (1984, p.163) states that the objectives of promotions include:

- Building awareness and interest in the service product and the service organisation,
- Differentiate the service offer and the service organisation from competitors,
- Communicate and portray the benefits of the services available,

- Building and maintaining the overall image and reputation of the service organisation is a forth objective,
- Persuade customers to buy or use the service.

The characteristics of services, i.e. intangibility, inseparability, heterogeneity and perishability that were discussed earlier assume importance when differences between goods and services are examined from the buyer's viewpoint (Cowell, 1984, p.166). They can therefore be used to strengthen the promotional effects for services. This is particularly true of an education service where the prospective student cannot feel or touch the service beforehand. The need to see pictures of the buildings or hear success stories of graduates etc. to help them visualise the service offering.

3.4.2.5 People

According to Palmer (2011, p.37 and McColl *et al.* (1998, p.20), for most services, people are a vital element of the marketing mix. People include all human actors who play a part in service delivery and this influence the buyer's perceptions: namely, the firm's personnel, the customer, and other customers in the service environment (Zeithaml and Bitner, 2003, p.24).

With manufactured goods management can usually take measures to reduce the direct effect of people on the final output as received by customers (Palmer, 2011, p.37 and McColl *et al.*, 1998, p.20). According to Palmer (2011, p.37), the buyer is not concerned with whether the production worker dresses untidily, uses bad language at work or turns up for work late, so long as there are quality control measures which reject the results of lax behaviour before the car reaches the customer. On the other hand, the performance of the car dealership personnel in selling and maintaining the vehicle is, however of more direct importance to the customer (McColl *et al.*, 1998, p.20).

Palmer (2011, p.37) and McColl *et al.*, (1998, p.20) state that while the importance attached to people management in improving quality within manufacturing companies has increased people planning assumes much greater importance within the service sector. For this reason, it is essential that service organisations clearly specify what is expected from personnel in their interaction with customers and maintain morale and retain staff. To achieve the quality service, methods of recruiting, training, motivating and rewarding staff cannot be regarded as purely personnel decisions – they are important marketing mix decisions (Palmer, 2011, p.37 and McColl *et al.*, 1998, p.21).

In many services situations, customers themselves can also influence service delivery, thus affecting service quality and their own satisfaction. Customers not only influence their own service outcomes, but they can influence other customers as well (Zeithaml and Bitner, 2003, p.25).

According to Zeithaml and Bitner (2003, p.318) front-line employees and those supporting them from behind the scenes are critical to the success of any service organisation. They go on to state that service employees are the service, are the organisation in the customer's eyes, are the brand and are the marketers (Zeithaml and Bitner, 2003, p.318). Zeithaml and Bitner state that satisfied employees make for satisfied customers (Zeithaml and Bitner, 2003, p.320). They also mention that unless service employees are happy in their jobs, customer satisfaction will be difficult to achieve (Zeithaml and Bitner, 2003, p.320).

Customers' perceptions of service quality will be impacted by the customer-orientated behaviours of employees (Zeithaml and Bitner, 2003, p.321). Delivering the service as promised is often totally within the control of front-line employees. When services fail or errors are made, employees are essential for setting things right and using their judgement to determine the best course of action for service recovery (Zeithaml and Bitner, 2003, p.321).

Front-line employees directly influence customer perceptions of responsiveness through their personal willingness to help and their promptness in serving customers. Individual employees with whom the customer interacts confirm and build trust in the organisation or detract from its reputation and ultimately destroy trust (Zeithaml and Bitner, 2003, p.321). Zeithaml and Bitner (2003, p.321) state that to build customer-orientated, service-minded workforce, an organisation must hire the right people, develop people to deliver service quality, provide the needed support systems and retain the best people. For example at a university staff who deal with promotional activities or applications and enquiries often create the first impression of the institution. If they interact poorly with prospective students this might stop the student from eventually applying or choosing that university.

According to Zeithaml and Bitner (2003, p.339) if employees feel valued and their needs are taken care of, they are more likely to stay with the organisation. Zeithaml and Bitner (2003, p.240) state that if a company wants the strongest service performers to stay with the organisation it must reward and promote them. Therefore it is important not to ignore the employees in the service delivery as their role can have very positive or negative impact for the organisation.

3.4.2.6 Physical Evidence

According to Palmer (2011, p.37) the intangible nature of a service means that in many cases potential customers are unable to judge a service before it is consumed. This intangibility increases the riskiness inherent in a purchase decision and also makes it difficult to judge the quality of the service (Palmer, 2011, p.37). Palmer (2011, p.37) suggest that by offering the tangible evidence of the nature of services this level of risk can be reduced.

Physical evidence refers to the environments in which the service is delivered and where the firm and customer interact, and any tangible components that facilitate performance or communication of the service (Zeithaml and Bitner, 2003, p.25).

Palmer (2011, p.8) suggest that the tangible evidence associated with a service provides quality service clues. For example, the design of department and other retail stores including their layout, colour schemes, music, scents from perfumes, staff appearance, shopping bags and other aspects covering the tangibles in this sophisticated environment (McColl *et al.*, 1998, p.22). In management consulting the business cards and the presentation quality of reports and other materials provide some of the tangible evidence used by customers to judge quality (McColl *et al.*, 1998, p.22). The appearance and content of invoices and bills is also regarded as part of the tangible evidence to be considered carefully by the marketer (McColl *et al.*, 1998, p.22). Communication such as letters and pamphlets from a university as well as its buildings etc are also sending messages about the quality it offers and influence their perception.

3.4.2.7 Process

Process decisions affect how the service is delivered to consumers. Process refers to the actual procedures, mechanisms, and flow of activities by which the service is delivered (Zeithaml, Bitner and Gremler, 2009, p.25). Some services are very complex, requiring the customer to follow a complicated and extensive series of actions to complete the process (Zeithaml and Bitner, 2003, p.25).

Palmer (2011, p.38) suggest that a service marketer examines the process involved in service delivery to identify ways in which a better service may be provided to a customer. In many cases this may involve removing bottlenecks and otherwise streamlining the service delivery system. The use of technology may be used to improve processes (McColl *et al.*, 1998, p.22). The processes at a university involve the application process and registration for example. This can either be a tedious

process with many manual components or allow the student to do this online from their home computers.

The underlying concept in developing each of these elements of the marketing mix for services is to use them to support each other, to reinforce the positioning of the product and to deliver appropriate service quality to achieve competitive advantage (Payne, 1993, p.124).

3.5 Positioning of a University

The decision about where to attend university is not an easy task for most high school pupils as it is a highly involved decision which has implications for their future (Veloutsou, Lewis and Paton, 2004, p.160). Adding to the complexity of this decision is the current reality of consumers being overloaded with information about various products and services (Kotler and Armstrong, 2004, p.259). Kotler and Armstrong (2004, p.259) explain that consumers deal with this by organising products and services into groups and “positioning” them in their minds. The overload of information is no exception when it comes to the educational service.

Potential applicants are faced with a wide range of tertiary institutions and qualifications to choose from. According to James, Balwin and McInnis (1999, cited in Maringe, 2006, p.466) “higher education environments in most developing countries have become competitive and institutions increasingly have to compete for students in recruitment markets.

In applying the buying behaviour theory to education, Chapman (1986) suggests 5 stages that students and their parents will pass through in selecting an institution or subject of study (Maringe, 2006, p. 468). The *pre-search behaviour* stage is where students have early thoughts about their future and passively register the existence of information about higher education to which they are exposed (Maringe, 2006, p. 468). In the *search behaviour* stage applicants have already made a short list of potential providers and use a range of information to make up their minds (Maringe, 2006, p. 468). Students submit their applications to selected institutions in the *application* stage (Maringe, 2006, p. 468). The *choice decision* stage is when the student accepts the offer. Lastly the applicant turns up for the *registration* stage (Maringe, 2006, p. 468). Maringe (2006, p.469) states that an understanding of these stages provides a strong foundation for institutions to position themselves in a competitive market.

Consumers use a set of criteria based on features or benefits when evaluating and deciding amongst the competing alternatives in a product or service (Palmer, 2011, p.157 and Hawkins *et al.*, 1998, cited in Yamamoto, 2006, p.561). Amongst the literature a wide range of factors have been identified as influential in a potential student's decision about which university to attend:

- *Reputation of the University and the specific programmes* (Hayes, 1989; Moogan Baron and Harris., 1999; Soutar and Turner, 2002; Vaughn, 1978 cited in Veloutsou *et al.*, 2004, p.161). Veloutsou *et al.* (2004p.161) suggest that “this is usually related to the earlier performance of the institution rather than its current performance, structure and offering”. Garden (2003, p.168) suggests that reputation in a service is often overlooked. Garden (2003, p.168) also suggests a University should communicate its strengths and positive elements to the community.
- *The location of the university and the geography of its surroundings* (Joseph and Joseph, 1998, p.91 and Veloutsou *et al.*, 2004, p.161).
- *Distance from home* (Soutar and Turner, 2002, p.40). This could include the time taken to get to each university and access to public transport (Soutar and Turner, 2002, p.40). Distance from home was also identified in Garden's study as part of the university decision (Garden 2000, cited in Garden 2003, p.173).
- *The institution's infrastructure* such as the library facilities, classrooms, computer labs, campus security and the university accommodation (Coccari and Javalgi, 1995; Vaughn, 1978 cited in Veloutsou, 2004, p.161).
- *The campus atmosphere* (quite or lively) (Soutar and Turner, 2002, p.40).
- *The costs associated with study at the University* (Chapman, 1986 cited in Veloutsou, 2004, p.161 and Joseph and Joseph, 1998, p.91). The costs could be related to University fees, cost of living in the area and the possibility of securing financial aid (Veloutsou, 2004, p.161). “Students who rate the financial aspects highly consider the practical implications of being able to afford an education” (Bonnema and Van der Walt, 2008, p.321). Garden (2003, p.170) confirms “the reality in South Africa is that a large group of scholars cannot afford to pay for tertiary education and many rely on scholarships and bursaries to continue their education.
- *The quality of the teaching staff* (Garden, 2003, p.165 and Soutar and Turner, 2002, p.40). According to Garden (2003, p.165) “Potential students seek institutions that boast highly qualified lecturers, as highly qualified lecturers would be seen as an indicator of a quality university and therefore quality education”. According to Garden (2003, p.165) “potential

students seek institutions that boast highly qualified lecturers, as highly qualified lecturers would be seen as an indicator of a quality university and therefore quality education”.

- *The future career prospects and opportunities following graduation from the university* (Chapman, 1986; Hayes, 1989; Newell, Titus and West, 1996; Soutar and Turner, 2002 cited in Veloutsou, 2004. p.161-162). This factor would include the compensation, i.e. earning potential and growth, job availability and growth and job requirements (Yamamoto, 2006, p.561).
- *Employability* According to Bonnema and Van der Walt (2008, p.318) these are aspects of the institution that will enhance the chances of gaining employment after the completion of studies. This also shows a concern for long-term need fulfilment and not just the short term aspects of being a student.
- *The quality of life during their studies* The surroundings and available facilities becomes important as students will spent a few years of their lives living in the area (Chapman, 1981, Coccari and Javalgi, 1995 cited in Veloutsou *et al.*, 2004, p.162).
- *Course content* This includes the academic and practical components of the course (Bonnema and Van der Walt, 2008, p.318).
- *The type of course they want to do* e.g. business, law, engineering (Soutar and Turner, 2002, p.40). This was also identified by Garden (2000, cited in Garden 2003, p.173) as being very influential in a student’s decision of which university to attend.
- *Sporting* These include the opportunities for and the quality of sport at the institution (Bonnema and Van der Walt, 2008, p.318). “Sporting also implies a number of social factors such as winning, being part of a team, team social events and meeting people”
- *Significant persons; friends, parents, high school* Joseph and Joseph (1998, p.91) state that the ‘significant persons’ influence the student in three ways: 1) comments made by these people shape the students’ expectations of a particular tertiary institution, 2) they may offer direct advise on which institution the student should choose, 3) the advice of friends that attend a particular institution also influences their decision. Chapman (1981, cited in Joseph and Joseph, 1998, p.93) believes that of all the significant persons, the parents are the ones who have the greatest impact on the students’ choice. Conversely in Maringe’s study (2006, p.473) teachers were found to be the strongest factor in influencing the student’s choice of course while parents were the least important. Maringe (2006, p.473) suggests that “secondary school teachers could be the universities’ greatest allies in helping students decision making about higher education study”.

- *Institution's efforts to communicate with students: written information, campus visits and admissions/recruitment.* Joseph and Joseph (1998, p.95) conclude that “promotional activities developed by tertiary institutions should support their market positioning and reflect the importance of the value of education and degree (content and structure) attributes”. To achieve this they suggest using “testimonials of alumni who are presently employed which would emphasize the value of education, use testimonials of employers who would attest to the quality of graduates. This could build up the reputation of the degrees offered by an institution. Promotional material provided to potential students must have clear and concise information in relation to the courses available, the entry requirements and the availability of specialist programmes” (p.95).
- *Security:* This can include safety on campus at night Garden (2003, p.177).

Soutar and Turner (2002, p.40) argue that some of the factors that influence a student's decision of which university to attend are more important than others and in determining their university preferences students will consider what is important to them and, consciously or unconsciously, trade-off between these attributes.

Maringe (2006, p.467) argues that the reasons applicants choose universities and courses are central to institutional positioning. “Consumers in Higher Education now exist in a positional market, where institutions compete for the best students while the applicants compete for the most preferred institutions” (Maringe, 2006, p.469). Bunzel (2007, p.152) proclaim that “various corporate marketing strategies are being employed in the academic world as universities search for ways to improve ranking”. In operating and surviving in such a competitive environment some universities are also choosing to follow the advice of Kotler and Armstrong (2004, p.259) who suggests that they create positions that will be advantageous for their products in the selected market.

Veloutsou *et al.* (2004, p.170) maintain that “attracting and retaining students suited to the courses offered must be one of the most important objectives of any university” and conclude that this requires “the development of unique selling points and communicating this to potential students”. Paramewaran and Glowacka (1995, cited in Ivy, 2001, p.276) who did a study on university image advocate that “higher education institutions need to maintain or develop a distinct image to create a competitive advantage in an increasingly competitive market”. “It is this image that will impact on a student's willingness to apply to that institution for enrolment” (Ivy, 2001, p.279). Similarly Garden

(2003, p.173) suggests that universities communicate effectively by highlighting its strengths especially those that are important to its target market.

However this can be a very challenging task for universities. Universities are finding it more challenging to attract the appropriate students with their limited resources (Veloutsou *et al.*, 2005, p.280). This is supported by Ivy (2001, p.279) who states that many universities globally are experiencing difficulties with decreasing student number and decreasing funding.

“If educational institutions are to develop strategies that will attract a sustainable share of the market, they need to know their customers, understand their needs and develop strategies to satisfy those needs” (Joseph and Joseph, 2000, 43). “To become the university of choice you must be positively represented, the students, advisers and general stakeholders must know who you are, and what you offer in order to consider you as a choice” (Veloutsou *et al.*, 2005, p.280).

3.6 Conclusion

This chapter discussed services and in particular the educational service which is the focus of this study. It began by a discussion of the characteristics of services. This is followed by the marketing strategy for services which included positioning a service and the services marketing mix. These service attributes and strategies are applied to the Foundation Programme at UKZN later on. Lastly the positioning of a university is discussed. This provided the bases for identifying factors important to the target market of the Foundation Programme at UKZN in their selection of a university and would be used to develop the questions for stage one of the data collection.

Chapter 4: Science Access Education in South Africa and the UKZN Foundation Programme

4.1 Introduction

This chapter begins with a discussion of the history of Science Access education in South Africa looking at the need for access programmes. Then a detailed discussion of the Foundation Programme at UKZN is provided. The impact of the merger, financial assistance for access students, introduction of the Augmented Programme and competition is included. This follows the marketing of the Foundation Programme which includes targeting, positioning and the marketing mix. Lastly other research on the Foundation Programme is provided.

4.2 The History of Science Access Education in South Africa

“In South Africa, since 1994, a democratically elected government has set out to achieve ‘a better life for all’ by focusing on economic development, by seeking to reconstruct the entire social system, and by aiming to reintegrate successfully into the international community...” (Council for Higher Education, 2004a, p.14). “... South Africa is striving to create a non-racial democratic society based on the principles of equity, non-racialism, and non-sexism” (Jaruzel, 2004 cited in Brown, 2006, p.512).

South Africa’s apartheid past produced a system of inferior education for blacks (Boekhorst, 2004, p. 67). Blacks were deprived of the most basic citizenship rights, laboured in jobs that earned them a very small wages, attended under-resourced schools and lived in extreme poverty (Brown, 2006, p.512). “During the apartheid era resources were lavished on schools serving white students while schools serving the black majority were systematically deprived of qualified teachers, physical resources and teaching aids such as textbooks and stationery” (Fiske and Ladd, 2006, p.96). These unfair discrepancies amongst the races resulted in an inferior education for majority of black South Africans which also left them insufficiently prepared for university studies.

Promoting racial equity in the education system was a major task of the new democratic South African government that assumed power in 1994 (Fiske and Ladd, 2006, p.96). “Despite the inherited problems and challenges it faces higher education has immense potential to contribute to consolidating democracy and social justice, producing critical intellectuals, developing knowledge, and expanding and improving the economy” (Council for Higher Education, 2004a, p.16). Since then policies have been developed in the education sector correcting apartheid and attaining to

global trends (Scott *et al.*, 2007, p.9). Hence the provision of access programmes were accelerated, as these were aimed at increasing the number of previously disadvantaged individuals entering university and bridging the gap between learner's school attainments and the demands of higher education programmes (Department of Education, 1997, paragraph 32).

Besides the history of the apartheid education system in South Africa there is also a shortage of, and need to increase the number of science graduates. In South Africa the performance in Maths and Science has been persistently low (Scott *et al.*, 2007, p.11). Steyn and Maree (2002, p.47) believe that "the number of students who, on the strength of their scholastic achievements, are able to complete these courses (i.e. natural sciences, engineering and medical sciences) successfully at university, is insufficient to satisfy the demands of a developing country such as South Africa". According to the National Assessment of Educational Progress, 2004, low Maths achievement is especially pronounced in students from low-income households (cited in Jordan, Kaplin, Olah and Locunaik, 2006, p.153). Statistics from the Department of Education (2001, p.12) verify the poor performance in Maths and Science by their analysis of the 2000 Senior Certificate results which showed that out of 400 000 candidates only 20 243 African candidates wrote Mathematics on the higher grade with only 3128 who passed. This continues to be a problem as seen in the recent 2011 National Senior Certificate examination which showed that only 46% of the total number of learners who wrote Mathematics in the country actually passed it (Department of Basic Education, 2011, p.57).

Compounding this problem is the reality that ... "more than half the black Maths and Science teachers are under prepared in these fields" (Narsee, 2002, p.8 cited in Fiske and Ladd, 2006, p.102). An EduSource report (1997, cited in Department of Education, 2001, p.12) stated that although 85% of mathematics educators were professionally qualified as educators only 50% had specialised in Mathematics in their training. Similarly while 84% of science educators were qualified only 42% were qualified in science (Department of Education, 2001, p.12).

A high level of mathematical and scientific competence in a country will determine its ability to progress technologically, industrially and economically (Anonymous, 2004, p.8). Steyn and Maree (2002, p.47) concur and state that "prosperity for South Africa's people requires that they increasingly apply scientific and technological expertise...which is possible through effective training of students in the natural sciences, engineering and medical sciences". In addressing the inequalities of the past there is a particular need to increase science graduates from a previously

disadvantaged background. The Foundation programme is helping address this national need. In order to attain the desired number of science graduates particularly from disadvantaged backgrounds it is therefore imperative that the Foundation Programme attract an adequate number of applicants.

The above discussion highlights the reasons that gave birth to access programmes in South Africa and in particular access programmes in science. There has also been a considerable amount of growth in the number of access programmes in science. The growth in access programmes in science has been encouraged by government who, in trying to address the “articulation gap between learner’s school attainment and the intellectual demands of higher education”, ...“found it necessary to accelerate the provision of bridging and access programmes” (Department of Education, 1997, paragraph 32). Thus access programmes are being offered by a number of institutions.

4.3 Foundation or Access Programmes for Science Education

The terminology for foundation, bridging, augmented and access are often used at various times but really mean the same. (Hay and Marais, 2004, cited in Bass, 2007, p.2). The Department of Education (2006, p.2) states that “the term ‘foundation programme’ is often used to refer to learning activities, at the lower end of the higher education band, that are intended to enable students from disadvantaged educational backgrounds to acquire the academic foundations necessary for succeeding in higher education”. According to Wood and Lithauer (2005, p.1002) the main function of a foundation programme is to provide entry into tertiary education by empowering them with the knowledge and skills they need “and in addition to knowledge and skills, well-constructed foundation programmes also provide students with values and attitudes outside the purely academic sphere”.

Pavlich, Orkin and Richardson (1995, cited in Essack and Quayle, 2007, p.74) argue that the following factors contribute towards the effectiveness of access programmes:

- The development of sensitive alternative selection procedures, i.e. identifying the more capable students regardless of their matric results
- The extent to which the faculty, administration and the student body perceive the programme as ‘legitimate’
- The use of learning technologies (tutorials, computer assisted learning etc.)
- Intra-and-inter programme management structures

- Ensuring that disadvantaged students are catered for in non-academic ways (in terms of financial aid, counselling services etc.)

Thus a number of factors need to be considered in the offering of an access programme. Alternative selection procedures are helpful as matric results for access students might not necessarily reflect their ability (Grussendorff, Liebenberg and Houston, 2004, p.266). Its more a reflection of their schooling environment.

For the Department of Education their main objective is “to ensure that students who enter Foundation Programmes actually succeed in them and do so from an educational perspective” (Menon, 2008). The progress reports of each institution help them monitor the institutions’ implementation of the provision of access and helps them decide on funding they release for the foundation programme (Menon, 2008). When trying to address issues of access the Department of Education does so from multiple levels not just by the provision of Foundation programmes at universities (Menon, 2008). They try to “improve the academic quality of the programmes by increasing the infrastructural capacity of institutions and improve the matric throughput rates so they help increase the number of students available for entrance into university etc.” (Menon, 2008).

Rollnick (2010, p.16) states that a number of options are available for redress: extra tutorials that run alongside regular courses, zero-level pre-degree courses, reorganised degree structures involving one or more extra years and complete restructuring of the degree. “By 2001, almost every university in South Africa has been offering some sort of intervention providing access to disadvantaged students” (Pinto, 2001, cited in Rollnick, 2010, p.44). Table 4.1 provides a list of access programmes in South Africa at post school or university level.

Table 4.1: Access Programmes in South Africa

<i>Merged institution</i>	<i>Previous name</i>	<i>Programme</i>
University of South Africa	University of South Africa	Access Programme
University of South Africa	Technikon SA	Open Access Programme
University of KwaZulu-Natal	University of Natal, Durban	<i>UNITE</i>
National Access Consortium of the Western Cape	NA	Leaf Programme
Zululand University	Zululand University	Foundation Programme for Science and Agriculture

University of the Witwatersrand	University of the Witwatersrand	College of Science
Cape Peninsula University of Technology	Cape Technikon	Foundation Programme
Fort Hare University	Fort Hare University	The Enriched and Foundation Year Programme <i>EFYP</i>
University of Limpopo	Medunsa	Foundation Courses: Chemistry, Mathematics and Physics
Durban Institution of Technology	ML Sultan Technikon	Augmented programme in Analytical Chemistry and Chemical Engineering
Durban Institution of Technology	Natal Technikon	Engineering Foundation Course
Nelson Mandela Metropolitan University	Port Elizabeth Technikon	Pre-technician Programme
Tshwane University of Technology	Pretoria Technikon	Certificate for Lab Assistants
University of Johannesburg	Rand Afrikaans University	Science Foundation Programme
Tshwane University of Technology	Technikon North-West	Foundation Year Programme
University of Johannesburg	Technikon Witwatersrand	Academic Support unit <i>ASU</i>
University of KwaZulu-Natal	University of Durban-Westville	Science and Engineering Foundation Programme <i>SEFP</i>
University of KwaZulu-Natal	University of Natal, Pietermaritzburg	Science Foundation Programme <i>SFP</i>
Nelson Mandela Metropolitan University	University of Port Elizabeth	University of Port Elizabeth Advancement Programme <i>UPEAP</i>
North West University	University of Potchefstroom	TECHPUK Career Preparation Programme
University of Pretoria	University of Pretoria	Foundation Year Programme in Mathematics and the Basic Sciences <i>UPFY</i>
University of Limpopo	University of the North	University of the North Science and Mathematics Foundation Year <i>UNIFY</i>
North West University	University of the North West	Science Foundation Year Programme
Walter Sisulu University for	University of the Transkei	Science Foundation Year

Technology and Science		Programme <i>SFP</i>
University of the Western Cape	University of the Western Cape	Science Foundation Programme
University of the Witwatersrand	University of the Witwatersrand	Engineering Foundation Programme
Walter Sisulu University for Technology and Science	Border Technikon	Tertiary Foundation Course <i>TFC</i>
North West University	University of Potchefstroom	OPIPUK Academic Support Programme for Engineers
Rhodes University	Rhodes University	Science Foundation Programme
University of Cape Town	University of Cape Town	General Entry Programme in Science <i>GEPS</i>
University of KwaZulu-Natal	University of Natal, Durban	Augmented Science Programme
University of Pretoria	University of Pretoria	Extended Degree Programme
University of Stellenbosch	University of Stellenbosch	Physical and Applied Sciences Foundation Programme <i>SFP</i>
University of Johannesburg	Vista University	4-Year BSc
University of Stellenbosch	University of Stellenbosch	Engineering Foundation Programme
Free State Technikon	Free State Technikon	Context Advancement Program <i>CAP</i>
University Free State	University Free State	The resource-based learning Career Preparation Programme <i>CPP</i>
Private	Private	Star Schools
NGO	NGO	Protec
University of Pretoria	University of Pretoria	Technology Access Programme <i>TAP</i>
South African Government		Dinaledi Programme

(Pinto, 2001 cited in Rollnick, 2010, p.61)

As can be seen in the above table access programmes at Universities in South Africa are referred to in a variety of ways.

4.4 Competition

De Jager and Du Plooy (2006) state that technikons and universities are now competing directly, for the same market. As seen in the table in the above section a number of tertiary educational

institutions in South Africa offer a variety of programmes to address the call to provide access to previously disadvantaged students. Higher education institutions are taking on a more active marketing approach to improve the efficiency and quality of their offerings to deal with the increased competition that tertiary institutions face (De Jager and Du Plooy, 2006).

The Foundation Programme at UKZN faces both direct and indirect competition. The researcher was not able to obtain a comprehensive set of information of competing Foundation Programmes in South Africa from the Department of Education despite various attempts. For the purposes of this study the Universities of Cape Town, Fort Hare, Witswatersrand, Stellenbosch, Rhodes, Pretoria and Zululand were chosen as the main form of direct competition for the Foundation programme at UKZN as they have access programmes as well.

In addition the Foundation Programme also faces many forms of indirect competition. These include Technikons, Colleges, finding employment or working in family business. Competition could exist from those institutions that offer 'vocational training', i.e. the institutions that teach and train one for a specific job (Kioko, 2008). The offering of the Foundation Programme on the Westville campus and the offering of the Augmented programme could be a form of internal competition, according to the Head of the CSA (Kioko, 2008). The target market is faced with all these options to choose from after completing their schooling.

Farrington (1999) (cited in Rowley and Sherman, 2001, p.17) states that competition exists and campuses really have no choice but to confront it head on.

4.5 Overview of the Foundation Programme at UKZN

The Science Foundation Programme (SFP) which is part of the Centre for Science Access (CSA) is a one year alternative access programme which provides an access route for underprepared students to enter the Faculty of Science and Agriculture. The programme is an example of the University of KwaZulu-Natal's strategic planning, initially to transform itself and to address the problems created by the educational inequities of secondary schooling in the apartheid era (University of KwaZulu-Natal, 2004b, paragraph 1).

The SFP was established in 1991 with 31 registered students. The programme has since grown in numbers having the highest number of students in 2001 when there were 280 students. It is offered on the Pietermaritzburg and Westville campuses of the University.

Grayson (1996, p.993) states that in South Africa it is common to speak of a 'gap' between high school and university. The gap refers to a discontinuity between the attitudes to learning, amount of work, intellectual environment, and so on that are encountered at school and at university (Grayson, 1996, p.993). According to Grayson (1996, p.993) this gap exists for all students, owing largely to the highly authoritarian, disciplinarian nature of schooling in South Africa but the gap is wider for students coming out of black schools, where the problem has been compounded by issues such as severe lack of resources, overcrowded classrooms, underqualified teachers, and unstable and sometimes dangerous social environments. According to Grayson (1996, p.993) the aim of the Science Foundation Programme (SFP) is to enable black students by preparing and bringing them to a place where they will be able to successfully complete a science degree.

The SFP differs from a bridging programme in that it does not assume that the students enter at a level close to what is needed for university work, and then attempt to provide an intermediate stepping stone between school and university. Rather the assumption in the SFP is that students need to build a foundation for meaningful learning, in most cases for the first time (Grayson, 1996, p.993). It is a phased transition, where the beginning and end of the programme are matched to where the students come from and where they wish to go next (Grayson, 1996, p.993). The transition is phased in terms of pace of work, quantity of work, background required and level of difficulty, with each of these facets increasing as the year goes on (Grayson, 1996, p.993).

Peacock (1995, p.4) identified seven factors being characteristic of the SFP:

- that the guarantee of full funding for SFP students has been crucial in making the programme not only acceptable to students but positively sought-after
- that it is a well-theorised and coherent programme
- that the coherent philosophy of the programme helps ensure that students get a clear and continually reinforced set of messages and experiences about working consistently throughout a course and developing useful study habits
- that the students all living in campus accommodation facilitates both social and study interaction
- most agree that the integral counselling part of the programme has proved its value beyond reasonable doubt in providing support for students who are undergoing a sometimes very stressful and concentrated period of private and public change

- that language and language-related work (the 3L component) is most valuable in reinforcing reflective skills in students ('learning how to learn') and that it should – as it does – liaise closely with the content needs of the subject tutors

Some of these characteristics are no longer applicable due to influencing factors such as limited funding etc. Currently the Foundation Programme is given a limited amount of funding for students. Campus accommodation is also limited.

“The identification of students with potential to succeed in Mathematics and science-based studies despite previous educational disadvantage is a critical issue which many institutions in South Africa are grappling with” (Van der Flier, Thijs, and Zaaïman, 2003, cited in Mabila, Malatje, Addo-Bediako, Kazeni, and Mathabatha, 2006, p.295). To be considered for the Foundation Programme at UKZN, applicants must be from a disadvantaged school and have done Maths and Science in matric with a minimum of a standard F and have at least 20 matric points. They would also be students that do not meet the entry requirements to go directly into a science degree. “The greatest uncertainty about the validity of Matric as a predictor of further performance exists for low scoring, disadvantaged students from the previous DET black only educational systems” (Hofmeyr and Spence 1989, Rutherford and Watson, 1990, Martin, 1992, Braun and Nel, 1995, Herman, 1995 Yeld and Haeck, 1997, cited in Van der Flier, Thijs, and Zaaïman, 2003, p.399). Thus applicants are also required to write a selection test which aims to test students’ abilities in Mathematics and Science and look for students with learning potential in these subjects. “The selection test itself is used to assess whether students would respond to the level of work that they will encounter in an educational intervention” (Grussendorff, Liebenberg and Houston, 2004, p.267).

Students in the Foundation Programme take a package of foundation courses which includes Mathematics, Chemistry, Physics, Biology and one of two language courses: Communication in Science or Scientific Writing. In addition to these they also take the Lifeskills component which provides support in terms of study skills, career advice and many other life issues.

Students are assessed throughout the year in the form of tests, tutorials, assignments and the final assessment includes an examination. Successfully meeting all the requirements to proceed at the end of the year, which is to pass all modules, allows the student entry into a BSc degree in the Faculty of Science and Agriculture. Students may also go into degrees in the Faculties of

Engineering, Health Science and Medicine provided that they meet those entry requirements which are higher than just passing the Foundation Programme (Centre for Science Access, 2011a, p.1)

Since its inception the Foundation Programme has been successful in producing Maths and Science graduates at the University of KwaZulu-Natal. From 1991 to 2004, 1770 students were admitted to the Foundation Programme on the Pietermaritzburg campus and of these 530 students graduated so far (i.e. by the end of 2007) with a science or science-related degree whilst 138 students graduated with a degree in other fields (Centre for Science Access, 2011b). It should be noted that these students did not meet the university's entry requirements on their matric results and would not have been admitted into a science degree without the Foundation Programme.

The Foundation Programme has many strengths according to the CSA Head (Kioko, 2008,) which include:

- the location of the programme
- the provision of the correct intervention for students
- the entry requirements
- it meets the needs of its students
- there is ongoing reflection which allows for a workable intervention
- it is very dynamic which allows it to respond to changes
- the recruitment strategies which emphasise going out to reach students in their schools
- it is well integrated into the Faculty and university structure and receives support from these systems
- it has a group of staff very committed to teaching
- very competent and efficient administrative staff
- its curriculum

The CSA Head also acknowledged the programme's weakness which is mainly not enough financial resources to support students with their tuition and accommodation costs.

4.6 Impact of the Merger on the Foundation Programme

Goedegebuure (1992, cited in The Council for Higher Education, 2004b, p.2) defines a merger in higher education as "the combination of two or more separate institutions into a single new organisational entity, in which control rests with a single governing body and chief executive body, and whereby all assets, liabilities and responsibilities of the former institutions are transferred to the single new institution".

As part of transformation, redress and equity a number of mergers in higher education were prescribed by the state to dismantle the apartheid landscape of higher education and reconfigure a new landscape which will allow higher education to achieve the goals set for it in national policy (Council for Higher Education, 2004b, p.11). According to Botha (2001, p.274) “mergers occur fairly regularly in higher education abroad but are not a common phenomenon in South Africa”.

The University of KwaZulu-Natal was formed on 1 January 2004 as a result of the merger between the University of Durban Westville and the University of Natal (University of KwaZulu-Natal, 2004c, paragraph 1). A change like this could either be seen negatively or positively by the public. It is important to understand what effect this merger has on potential students in their choice of university and Foundation Programme. As a result of the merger the Foundation programme was offered on two campuses.

Thus the researcher wanted to investigate whether the merger of the Universities of Durban Westville and Natal contributed towards the enrolment targets not being met.

4.7 Financial Assistance for Access Students

The previous discussions highlighted the many difficulties that the foundation target market has to contend with. An area which continues to be challenging for them is the lack of financial resources because of their poor backgrounds. Often the level of poverty is extremely high and shortages of resources like food, water, transport and housing are not unknown amongst the students (Science Foundation Programme, 1998, p.7). In addition, the lack of these resources because of finances can increase can make studying more stressful than it already is (Foster, 1995, cited in Robotham and Julian, 2006, p.111).

In a study done by Chetty (2006, p.144) on the needs of students in the Science Foundation Programme at UKZN, *financial support for University Fees* was found to be the 3rd most important need. Thus financial assistance is a very important aspect for access students. Anderson *et al.* (1993, cited in Bass, 2007, p. 20) point out that access to finance (or the lack of) impacts negatively on academic performance especially amongst disadvantaged groups. Pavlich, Orkin and Richardson (1995, cited in Essack and Quayle, 2007, p.74) argue that the financial aid is one of the factors that contribute towards the effectiveness of access programmes and should be provided for students from disadvantaged backgrounds.

According to De Villiers and Steyn (2006, p.36) one of the challenges facing Higher Education institutions internationally is the pressure from the decrease in public funding. The trend of students having to pay more out of their own pockets for the costs of higher education is pointed out by De Villiers and Steyn (2006, p.38) who also suggest that a scheme is therefore needed to assist the poor.

Financial assistance for the Foundation students at UKZN has changed over the years. In the initial five years of the programme all Foundation students were given full bursaries to cover the costs of their studies and accommodation. Following this financial aid packages, which are loans that would need to be paid back, were given to all Foundation students who needed and qualified for it. Subsequently this has been replaced with a limited number of financial aid packages which are awarded on academic merit. As a result of the limited financial assistance a number of accepted students decline the offer of a place on the programme whilst others take a chance and register hoping to find some sort of financial assistance during the year and sometimes drop out at a later stage when this does not materialise.

The National Student Financial Aid Scheme (NSFAS) was introduced in 1995 so that loans could be granted to needy students from disadvantaged backgrounds to provide poor students with access to higher education (De Villiers and Steyn, 2006, p.46). To qualify for the loan the student's total family income needs to be below a certain amount per annum which is determined by NSFAS.

Financial assistance and its influence in the target market's decision about choice of University and Foundation Programme is thus appropriate for this study.

4.8 Needs of access students

As can be seen in the discussion above the target market for the Foundation Programme comes from a unique background which might be different from the 'average' student that enters university. This background is likely to influence their choices, their likes and dislikes and most importantly their needs.

Chetty (2006, p.89) in her study on the needs of SFP students identified the following needs as being important to this group of students:

- Financial support for university fees
- Financial support for travelling expenses

- Financial support for accommodation and meals
- Accommodation close to the University
- Prepared meals
- After hours study facilities
- Security
- Clear information regarding application
- Clear information regarding admission
- Information about SFP
- Easy procedures for application
- Easy procedures for registration
- Counselling advise
- Career advise
- Mentors
- Selection tests held in their province
- Accommodation when writing the selection test
- Orientation to University
- Orientation to SFP

However these needs were identified from students already within the University. This study was also focused on the time of entry into university. Students deciding on an access programme may have other or broader needs in addition to these.

Keke in her study of the SFP students which looked at their experiences at UKZN also identified needs of the Foundation students. These were needs of social, academic and personal nature (Keke, 2008, p.84):

- *Academic Adjustment*: Students felt underprepared for academic demands which was more than they were used to in school. They now also had to be responsible for their own learning. (Keke, 2008, p.84). Keke (2008, p.93) suggested that students be orientated early in the year with the amount of work they need to deal with.
- *Socio-economic conditions*: Students struggle with finances which impacts on their living conditions and thus affects their academic performance. They also worry about their family's destitute conditions back home (Keke, 2008, p.85). Keke (2008, 95) suggests that

the financial issues must be addressed by awarding scholarships and helping the students secure residence places at subsidised costs.

- *Student Demonstrators*: Some of the demonstrators were unfriendly and were not patient to give students the support they needed (Keke, 2008, p.86). Keke (2008, p.96) stated that it was important to carefully screen demonstrators before employing them and to deal with their attitude towards the students.
- *Misconceptions about counselling*: Students had misconceptions about counselling and therefore did not seek help when needed. They saw it confirmation of them not coping which would be embarrassing and a sign of weakness for them they preferred group sessions to avoid embarrassment (Keke, 2008, p.87). Keke (2008, p.94) suggested that students be educated about personal counselling and to discuss the misconceptions openly.
- *Family support*: Many of the students' parents were not educated and did not provide the needed encouragement or academic support. Students relied on their peers for academic motivation and personal support (Keke, 2008, p.89). Keke (2008, p.95) suggested that mentorship be encouraged and monitored within the SFP throughout the year as well as peer groups which would provide the academic and personal support for the SFP students.
- *Vocational guidance*: Students come to university without much career knowledge. Career advice should be offered early in the year (Keke, 2008, p.97).

The need recognition of consumers is the first stage of the buyer decision process where they recognise a problem or a need (Palmer, 2011, p.153, Kotler and Armstrong, 2004, p.199). Thus it is important that the needs of the target market are known. The researcher wanted to investigate if the needs of the access students are being catered for in the Foundation Programme as this could be a contributing factor to the problem of the unmet enrolment targets. According to Engel, Blackwell and Miniard, (1995, p.13), well thought out marketing strategy can impact on the motivation and behaviour of consumers if the product or service offering is designed to meet their needs and expectations. Thus it is important to first establish what the needs of the target market are.

4.9 Introduction of the Augmented Programme

The Augmented Programme was operating on the Howard College campus of the University from 1991 and it was introduced on the Pietermaritzburg campus in 2007. It is basically a 3 year BSc degree which is done over 4 years thus reducing the workload and providing additional support for students. It is still aimed at students from disadvantaged schools who do not meet the Faculty's

entrance requirements but have higher minimum entry criteria than the Foundation Programme, i.e. 28 matric points, higher grade E/standard grade B for Maths and Science.

The target market for this programme is 'a slice' of those who would have been taken into the Foundation Programme prior to the offering of the Augmented programme on the Pietermaritzburg campus. The Augmented programme has replaced the top band of the Foundation students, i.e. students between 20 to 34 matric points were previously considered for the Foundation programme whereas now those with 28 to 34 points are considered for the Augmented Programme. Thus it can be concluded that as a result of this, the target market for the Foundation Programme is now smaller. Therefore the researcher wishes to consider the impact of the Augmented Programme on the Foundation targets not being met.

4.10 Marketing Strategy of the Foundation Programme

The following discussion includes the targeting, positioning and marketing mix for the Foundation Programme at UKZN.

4.10.1 Targeting

The Foundation Programme targets students who have had an disadvantaged schooling, largely from previous D.E.T schools, i.e. they have been to schools where there is a lack of, or poor, resources such as laboratories, proper laboratory equipment, library facilities, electricity, telephone, computers, toilets or water (Fiske and Ladd, 2006, p.96 and University of KwaZulu-Natal, 2004b, paragraph 1). Sometimes these schools may not have had appropriately qualified teachers.

The socio-economic background that SFP students come from is associated with a number of difficulties (Science Foundation Programme, 1998, p.6-7):

- Students come from fragmented families and societies; they struggle with identity and family support, both personal and financial,
- They have often come from traumatised communities and some are personally the victims of violence and abuse,
- Often the level of poverty is extremely high and shortages of resources like food, water, transport and housing are not unknown amongst the students. This leads to poor health and nutrition.

In a study done by Simpson, Munro and Quayle (2008, p.15) of 792 students at UKZN, it was found that 26.5% of CSA students were highly vulnerable to food insecurity compared to 11% of

mainstream students. Food insecurity included 3 dimensions: anxiety and uncertainty about food situation, resources and supply; insufficient quality (includes variety and preferences of the type of food) and insufficient quantity of food intake and its physical consequences (i.e. reduced food intake and experience of hunger) (Simpson *et al.*, 2008, p.16).

Many students experience high levels of anxiety about finance (Science Foundation Programme, 1998, p.7). Schafer (2006) states that although the stress of financial uncertainty may be temporary, it can still have a negative impact on individuals (cited in Robotham and Julian, 2006, p.111). In addition, having limitations on financial resources can increase the impact of strains normally associated with studying (Foster, 1995, cited in Robotham and Julian, 2006, p.111).

Many of the SFP students have also strongly felt the effects of AIDS. Many of the students are in the age bracket where they or family members are HIV positive (Science Foundation Programme, 1998, p.7). They experience fear, anxiety and depression as a result of ill-health and bereavements. Significant members of the community (role models, mentors, bread-winners and seniors) are no longer there and this causes insecurity for many students (Science Foundation Programme, 1998, p.7).

4.10.2 Positioning

The image the CSA would like its target market to have of the Foundation programme is one of success (Kioko, 2008,). Kotler and Armstrong (2004, p.267) state that “the designing of the marketing mix, i.e. the product, price, place and promotion, involves working out the tactical details of the positioning strategy”. The marketing mix for the Foundation Programme is discussed below. This study aims to identify the image that the target market has of the Foundation programme.

Thus the unique selling proposition for the Foundation Programme is the access it provides for students from disadvantaged backgrounds into science degrees. As discussed above it provides them with the much needed skills and helps prepare them to succeed in a science degree. The students considered for the Foundation Programme do not meet the university’s entry requirements on their matric results and would not have been admitted into a science degree without the Foundation Programme. The Foundation Programme is designed to meet the unique needs of its target market.

Together with providing access, the Foundation Programme tries to address other areas of needs of its target market. The Programme receives support from the Faculty and University (Kioko, 2008) which allows it to provide for the needs of its target market and which is part of the strengths of the programme. This includes the use of well-equipped laboratories, technical staff, campus security, campus clinic, university cafeterias, sporting facilities and university residences etc. (Kioko, 2008). The counselling component and staff take care of the need for career and counselling advice. Special consideration is given to welcoming students by its own orientation programme that the Foundation Programme provides. The programme also tries to motivate its students through the teaching staff, counsellors and by arranging motivational talks by leaders in the community. Mentors who are senior students are employed to assist students with extra help and act as role models. However, a weakness for the programme is that it does not make provision for the need for job experience (Kioko, 2008).

4.10.3 Marketing mix

The following discussion includes the application of the marketing mix to the Foundation Programme at UKZN.

4.10.3.1 Product

Products, according to McColl *et al.* (1998, p.19) are the means by which organisations seek to satisfy consumer needs. A product in this sense is anything that the organisation offers to potential customers which may satisfy a need, whether it is tangible or intangible (McColl *et al.*, 1998, p.19).

For the Foundation Programme the core product is education but more specifically the product is access into a science degree. Foundation students do not meet the minimum requirements to go directly into a science or science-related degree but they have a need and desire to study a science or science-related degree. The Foundation Programme therefore satisfies the intangible need for access into a science degree. It provides students with the skills necessary to cope with a science or science-related degree.

The programme consists of a package of courses which include:

- Biology
- Chemistry
- Communication in Sciences or Scientific Writing
- Mathematics
- Physics

- Lifeskills

The learning outcomes of the programme are that learners should (University of KwaZulu-Natal, 2004b, paragraph 2):

- be able to communicate effectively
- gain mathematical competence
- acquire problem solving skills
- learn to use the scientific method and experimentation techniques
- be able to think critically
- be able to work effectively in groups
- manage information competently
- take responsibility for their own learning
- explore ethics and life skills
- have an awareness of career outcomes

In applying Lovelock's (1996, p.343) illustration of the Flower of service discussed in Chapter three in this instance the core product of the Foundation Programme is education which consists of the modules, curriculum etc. The petals of the Foundation Programme consist of the counselling component, financial assistance and bursaries, mentors, accommodation, infrastructure and facilities of the university, extra tutorial sessions, computer training, leadership opportunities as such class reps, career talks, motivational speakers and administrative assistance etc. Both the core product and the petals helps the Foundation improve its position in the minds of its target market.

Thus the product element of the marketing mix for the Foundation Programme includes an extensive offering for the Foundation students. The desired outcome for the students is for them to be successful.

4.10.3.2 Price

According to McColl *et al.* (1998, p.19) price decisions concern the general level of prices to be charged, discount structures, terms of payment and the extent to which price discrimination between different groups of customers is to take place.

In the Foundation Programme there are a number of price considerations. These vary from year to year. Firstly there is the application fee. The application fee for the 2011 cohort was R150 (Central Applications Office, 2011, p.124). This was to be paid at a First National Bank before 31 October 2010. Late applicants had to pay a fee of R300.

The 2011 tuition fee for the programme was R17402. The tuition fee could be paid at any First National Bank or at the University cashier. The tuition fee was payable as follows:

Table 4.2: 2011 Foundation Programme Fees

Acceptance deposit fee to secure an SFP place	R500 payable by 30 January 2011
Initial payment	R2 000 payable on or before registration order to register
Balance 1 st semester payment	Payable before 31 May 2011
Balance of fees	Payable before 31 August 2011

Over and above the tuition fee Foundation students are charged R1822 towards costs for their lecture notes.

Financial assistance is a major concern for access students because of their economic background. For students who are eligible and have been granted financial aid these costs will be paid on their behalf through an internal transaction into their fee account. Included in the loan is also a provision for books and meal allowances. A limited number of financial aid packages are allocated to the Foundation Programme. In addition there are also a limited number of bursaries that are awarded to the foundation students based on academic merit (Centre for Science Access, 2011a, p.1). The Foundation Programme is aware of the financial need of its target market and continually tries to obtain bursaries for them. It will help the programme improve its position with its target market.

If a student has been accommodated in the university residence they need to pay an initial deposit of R2500 on or before registration. Outstanding residence fees for semester one must be settled in full by 31 May 2011. Second semester fees are payable by 31 August 2011. Residence costs are from R16067.16 to R17758.44 per annum excluding meals (University of KwaZulu-Natal, 2011, p.10). These costs are covered by financial aid if granted to the student.

Although the Foundation programme provides a great opportunity for its target market it can only help them achieve success if they are given the much needed financial support to study at university.

4.10.3.3 Place

In services the accessibility in terms of ease of access that potential customers have to a service is a component of this mix element. It also involves physical location decisions, decisions about which intermediaries to use is making a service accessible to a consumer and non-location decisions which are used to make services available (McColl *et al.*, 1998, p.20). Intensive face to face delivery requires students to attend lectures on campus and interact personally with various aspects of the service, for example the counsellors etc.

The Foundation Programme is offered both on the Pietermaritzburg and Westville campuses of the University of KwaZulu-Natal. In Pietermaritzburg, the CSA Administration Building and the lecture venues are situated on 1 Golf Road. This is where Foundation students spend most of their time. Foundation students also use other venues at the University. The Biology Laboratory is situated on the Life-Sciences campus. The Physics and Chemistry laboratory is situated on the main campus. This means that students travel around the campus to attend lectures, tutorials and practicals.

Foundation students also go to other buildings mainly on the main campus for information or services. These include the library, Risk Management Services, Information Technology Division, Student LANS, Campus Clinic, Student Housing, Financial Aid Offices, Student Fees, Sports Administration and sports facilities.

Both the support and the academic services for Foundation students are spread over the campus. This requires that students have a level of fitness. The moving around in different venues for lectures also has to be done within a limited amount of time. One of the rules of Foundation Programme is that students will be locked out if they are late for lectures. Foundation students also have a very full timetable and sometimes going to the main campus to Student Fee etc to sort out administration duties may be problematic.

Both campus of the Foundation Programme is set in a beautiful surrounding, one being near the beach and the other near the Drakensberg. These locations help to emphasis the image of success for the students.

4.10.3.4 Promotion

The traditional promotional mix includes various methods of communicating the benefits of a service to potential consumers. Promotion includes advertising, sales promotion, public relations and personal selling (McColl *et al.*, 1998, p.19). According to McColl *et al.* the promotion of services often needs to place a particular emphasis on increasing the apparent tangibility of a service (1998, p.20).

Promotions for the Foundation Programme include efforts by the University and specific efforts by the CSA. The University uses advertising, public relations and personal selling to promote all the courses offered. Much of the advertising is handled through the Public Affairs Division. Advertising is done through newspapers, radio and posters.

The Schools Liaison Office implements a University-wide schools programme which compliments specific faculty and school initiatives. The primary task of this section is to promote undergraduate programmes to the schools' community (University of KwaZulu-Natal, 2004a, paragraph 1).

The CSA also has some strategies in place for its own promotion which focuses on reaching its specific target market. Reaching the target market of the CSA is not an easy task as many do not have televisions or radios nor do they read the newspaper. This is especially applicable to those who live in rural areas. Many of the parents are also not educated. From a survey done with students in the CSA it was found that the most appropriate way to reach the target market is by a current or ex-student from the programme or a university staff member going and speaking to the students at their schools and therefore much effort is made in this regard (Centre for Science Access, 2011c, p4). The CSA calls on current and ex-students to give presentations about the access programmes at their previous schools during the winter vacation. Students are given training on how to do this and give a package of information and forms for each school. Principals of these schools are required to complete an evaluation which gives feedback to the CSA and helps them improve this strategy. In addition, a marketing assistant has been employed to go out to the schools that are not covered by the students. On regular occasions staff of the CSA address learners in a variety of events such as career days, community events and at certain schools themselves. Word-of-mouth advertising (Kotler and Armstrong, 2004, p. 476) by students, their families and members of the public also helps create awareness of the CSA. Advertisements are placed in the CAO handbook which goes out to all applicants. The CSA has a variety of posters and pamphlets which are used to advertise the programme. The CSA has also produced its own DVD. Applicants from the target market who

have been not been accepted for Engineering, Medicine, Health Sciences and general sciences degrees are also invited to apply for the programme. The CSA tries to continually review these strategies to make them relevant to its target market. One of the ways this is done is to check how the current students heard about the programme. An unknown area pointed out by the CSA Head, Dr Joseph Kioko (Kioko, 2008) is that they don't know how many students could have come into the Foundation programme even though they are aware of it and what would have been the reason for them not coming. In other words are there learners who are aware of the CSA but who choose not to apply?

The Promotion of the CSA aims to help its target market see that they can have successful careers by completing the Foundation Programme.

4.10.3.5 People

According to McColl *et al.* (1998, p.20) for most services, people are a vital element of the marketing mix. People include all human actors who play a part in service delivery and this influence's the buyer's perceptions: namely, the firm's personnel, the customer, and other customers in the service environment (Zeithaml and Bitner, 2003, p.24).

In Foundation Programme the people include the university staff involved in the service delivery, both academic and support staff. The staff are from many departments within the university. External to the university are staff who also play a role in the service delivery, for example staff from the Central Applications Office. Prospective and current students also impact the service delivery.

People play an important role in the service mix. Having internally renowned faculty teaching courses is not sufficient for gaining competitive advantage (Shaik, 2006, paragraph 16). Shaik states that quality teaching has to be supplemented by quality supporting services by staff with a marketing attitude to maintain long-term relationships with the students. Implementation of relationship marketing requires a dedicated staff with a service attitude of mind, a good physical or virtual environment and well managed service processes (Shaik, 2005, paragraph 16).

The CSA and UKZN has a number of initiatives for staff recruitment and development. By doing this the image of success is once again being strived for.

4.10.3.6 Physical Evidence

According to Zeithaml and Bitner (2003, p.25) physical evidence refers to the environments in which the service is delivered and where the firm and customer interact, and any tangible components that facilitate performance or communication of the service.

The physical evidence for Foundation in Pietermaritzburg includes the buildings and grounds of the University, sports and recreational facilities, library, lecture rooms, laboratories, the CSA Administration building. Lecture notes and student cards also form part of the physical evidence.

The campus and buildings of the University of KwaZulu-Natal are continually maintained. These help promote the image of success for the student.

4.10.3.7 Process

Process decisions affect how the service is delivered to consumers. Process refers to the actual procedures, mechanisms, and flow of activities by which the service is delivered (Zeithaml and Bitner, 2003, p.25).

Prospective Foundation Programme students are required to apply to the Central Applications Office. They are then sent information about the entrance tests by the CSA Faculty and Administrative staff. Once this has been done they write the CSA entrance tests. Selection takes place. Students are then informed of the outcome of their application. They are then required to accept the offer of a place. Once students have accepted their place they are sent information about the university and CSA orientation and registration. Attendance at the university orientation is voluntary but compulsory for the CSA orientation. Students also need to attend registration.

If a student is offered a financial aid loan they are also required to complete the financial aid application form. The application is first checked by the CSA Administration and then processed by Financial Aid Services. Students are then informed of their eligibility for the loan and in some case the amount of the family contribution. Students are then required to complete a loan agreement form.

If a student is offered a place in university residence they are required to complete an acceptance form for the residence. They are also advised when they are allowed to take up occupancy in the university residence.

Once the registration and orientation have been completed students are provided with timetables and are required to attend lectures for both semesters. Throughout the year a number of tests are written and a final examination in November which determines whether they can continue with a science degree or not.

Therefore it can be seen that the service marketing mix for the Foundation Programme is unique and different to mainstream courses.

The image the CSA would like its target market to have of the Foundation programme is one of success (Kioko, 2008). It would be valuable to the CSA to know how it is positioned in the minds of its target market and whether there is alignment with what they are trying to portray. This study aims to identify the image that the target market has of the Foundation programme.

4.11 Other Research on the Foundation Programme

Research has been done on the Foundation Programme at UKZN in many aspects. Most of the research on access or the Foundation programme have mainly focused on pedagogical issues (e.g. Aungamuthu, 2010) or interventions such as language development (e.g. Boughey 2005); quality assurance to achieve access with success not merely participation (e.g. Akoojee and Nkomo 2007); learning approach profiles (e.g. Rollnick, Davidowitz, Keane, Bapoo and Magadla 2008); small group skills development workshops (Davidowitz and Schreiber 2008) and curriculum alignment (e.g. Reynolds 2008). Keke (2008) in her study of the SFP students looked at their experiences at UKZN in which she also identified needs of the Foundation students. This study focuses more on the managerial and marketing side aspects, looking at how the programme is positioned with its target market.

4.12 Problem

The problem that the Foundation Programme faces is that it has not met its enrolment target for the past five years on the Pietermaritzburg campus. This has many implications for the CSA, one being funding as funding is based on enrolment targets being met. This research aims to identify the possible reasons contributing to this problem.

4.13 Conclusion

The reasons applicants choose universities and courses are central to institutional positioning (Maringe, 2006, p.467). “Consumers in Higher Education now exist in a positional market, where

institutions compete for the best students while the applicants compete for the most preferred institutions” (Maringe, 2006, p.469). Bunzel (2007, p.152) proclaims that universities are also adopting corporate marketing strategies to their improve ranking.

“Attracting and retaining students suited to the courses offered must be one of the most important objectives of any university” and this requires “the development of unique selling points and communicating this to potential students” (Veloutsou *et al.*, 2004, p.170). Paramewaran and Glowacka (1995, cited in Ivy, 2001, p.276) who did a study on university image advocate that “higher education institutions need to maintain or develop a distinct image to create a competitive advantage in an increasingly competitive market”. “It is this image that will impact on a student’s willingness to apply to that institution for enrolment” (Ivy, 2001, p.279). Thus it is important for the CSA to strategically improve the positioning of the Foundation Programme at UKZN in the minds of its target market to help attract the best students and meets its enrolment targets.

This chapter looked at the history of science access education in South Africa. This provided the rationale behind the introduction of access programmes in South Africa and explained the competitive environment that exists in this area. As seen in the above discussion potential students have a number of institutions to choose from. In order to attract more students to its Foundation Programme UKZN needs to improve its position and create an image in its target market’s mind that will help them choose UKZN as their institution of choice for tertiary studies. Also included in this chapter was a detailed discussion of the Foundation Programme at UKZN and possible issues that might be contributing to the enrolment targets not being met. This discussion provided an indeth understanding of this service offering which is later compared to the target market’s needs. The following chapter provides the research methodology for stage one of this research.

Chapter 5: Research Methodology

5.1 Introduction

This dissertation includes two research methodology chapters, this being the first. The reason for this is that a triangulation method has been used for this study. Firstly the researcher used literature to identify the key attributes and issues surrounding this study. The data collection consisted of two stages: qualitative research which included focus groups (Stage 1) and quantitative research which includes questionnaires (Stage 2). The literature was used to develop Stage 1 of the data collection and the findings of the qualitative research in Stage 1 were used to develop the quantitative research in Stage 2 of the data collection. All three areas are brought together in the discussion and conclusions. Thus this chapter focuses largely on the methodology of Stage 1 of this study. This chapter begins with a discussion of the statement of the problem for this study. The main research question and objectives are spelt out. It then goes on to deal with the research design which includes the overall approach taken. The design of the qualitative research for Stage 1, sample design for Stage 1 and 2, data collection and analysis for Stage 1, interview guide for the focus groups and ethical considerations are discussed.

5.2 Statement of the problem

Since its inception the Foundation Programme at UKZN has been more successful in meeting its enrolment targets than in recent years where this has not been the case on the Pietermaritzburg campus. A number of factors may be contributing towards this problem such as the positioning of the programme, the needs of access students not being met, competition, lack of Financial Aid, the merger and the introduction of the Augmented programme. The researcher undertook to investigate the effects of these various factors.

5.3 Research Question

The research question for this study was therefore:

What factors contribute towards the Foundation Programme not attracting sufficient applicants to meet its enrolment targets on the Pietermaritzburg campus?

5.4 Research objectives

The research objectives of this study were to:

1. Identify determining dimensions, i.e. what attributes are looked at when choosing an access programme and university
2. Determine how various products rate on those dimensions to determine how the Foundation programme is positioned within the target market relative to competing programmes
3. Assess whether the needs of access students are incorporated into the way the programme is positioned
4. Identify the perceptions of the target market on the CSA's marketing strategies
5. Examine the effect of Financial Aid, or the lack thereof, on the perceptions of the target market
6. Evaluate the effect of the merger on the perceptions of the target market
7. Critically evaluate the impact of the introduction of the Augmented programme on the numbers

5.5 Research Design

The research design for this study was divided into two stages where two approaches, i.e. qualitative research and quantitative research, were both used to gather information. According Durrheim and Painter (2006, p.132) both quantitative and qualitative research have differing strengths and weaknesses, and constitute alternative, not opposing, research strategies. The combination of the qualitative and the quantitative approach in one study is referred to as the concept of methodological triangulation (Padgett, 1998, cited in De Vos *et al.*, 2005, p362). According to Patton (2002, p.206 cited in Strydom and Delport (2005, p. 314) 'by using triangulation the strengths of one procedure can compensate for the weaknesses of another approach'.

Denzin (1970, cited in Kelly, 2006, p.380) identifies four basic types of triangulation:

- *"Data triangulation.* This refers to the use of a variety of data sources in a study.
- *Investigator triangulation.* This refers to the use of several different researchers or evaluators, which is useful in drawing our attention to previously unnoticed researcher effects.

- *Theory triangulation*. This refers to the use of multiple perspectives to interpret a single set of data and this also means finding that the research findings can be incorporated into a more macro-analytical level of inference.
- *Methodological triangulation*. This refers to the use of multiple methods to study a single problem, looking for convergent evidence from different sources, such as interviewing, participant observation, surveying, and a review of document sources.”

Thus for this study the researcher undertook the methodological triangulation by using focus group interviews and survey questionnaires. Within the focus group interviews a data triangulation method has been followed as there were three groups of students which were also compared to each other.

Some advantages of triangulation are that:

- “It allows researchers to be more confident of their results” (De Vos, 2005, p. 357). Cohen, Manion and Morrison. (2007, p. 141) agree by stating that “if the outcomes of a questionnaire survey correspond to those of an observational study of the same phenomena, the researcher will be confident of the findings”.
- “It may also help to uncover the deviant or off-quadrant dimension of a phenomenon (De Vos, 2005, p. 357).
- “The use of multi-methods can also lead to synthesis or integration of theories (De Vos, 2005, p. 357)”.
- “Triangulation may also serve as the critical test, by virtue of its comprehensiveness, of competing theories (De Vos, 2005, p. 357)”

According to Nieuwenhuis (2007b, p.80) “triangulation is a traditional strategy for improving the validity and reliability of research or evaluation of findings”.

Triangulation was used in this study to improve the quality of the findings and to provide a deeper understanding of the research problem by including both qualitative and quantitative data. The triangulation approach also helped improve the confidence in the results as seen in the comparisons of findings of the two research stages in the discussion chapter.

5.6 Research Population Sample

The CSA targets applicants from disadvantaged schools largely from previous Department of Education and Training (DET) schools, i.e. these applicants have been to schools where there is a lack of, or poor, resources such as laboratories, laboratory equipment, library facilities, electricity, telephone, computers, toilets or water and sometimes under-qualified teachers (Grayson, 1996, p.993). The full 'population' of potential students for the CSA is thus all disadvantaged schools in South Africa. No international students are selected for the Access Programme. The CSA uses a list of 1942 high schools in KwaZulu-Natal provided by the Department of Education (DoE) in which schools are given a decile rating indicating how disadvantaged they are, to select students. The decile rating is arrived at by weighting various aspects about the school such as the number of learners in the school, number of classrooms, condition of the road access to the school, condition of the school building, availability of water at the school, power supply at the school, functional literacy, dependency ratio and per capita income. Deciles 1 to 8 which totals 1662 schools are considered for the access programme where decile 1 represents the most disadvantaged and 8 the least disadvantaged. The breakdown of schools per decile can be seen in Table 5.1. Schools from the other provinces are selected on a discretionary basis using similar factors because at the time no similar list was available from the Department of Education for selection. The CSA mainly targets students from KwaZulu-Natal. The researcher therefore chose to use the DoE list of Schools as the full population from which to extract the samples for the research

Table 5.1: Schools selected using Proportional Stratified Random Sampling

Strata	Decile	Number of schools	Relative Frequency	Number Sampled
1	1	278	0.167268351	5
2	2	170	0.102286402	3
3	3	262	0.157641396	5
4	4	190	0.114320096	3
5	5	232	0.139590854	4
6	6	190	0.114320096	3
7	7	136	0.081829122	3
8	8	<u>204</u>	<u>0.122743682</u>	<u>4</u>
	Total	1662	1.00	30

Adapted from Lind, Marchal and Wathen (2005, p.255)

Due to the need for representivity of the quantitative stage, Stage 2, this sample was determined first. To ensure proportional representation of each decile the researcher employed a proportional stratified random sampling technique to select the schools for this study. “Stratified sampling is used to address the problem on non-homogeneous populations in the sense that it attempts to represent the population much better than can be done with simple random sampling” (Maree and Pietersen, 2007, p. 174). The list of schools were divided into groups (strata) based on their decile rating thus resulting in 8 groups as only decile 1 to 8 are considered for access programmes. Once this was done 30 schools were selected proportionately from the strata to ensure that there is an even spread of the various levels of disadvantaged schools. One limitation here is that the sample was limited to 30 schools due to time, travel and money constraints. It should be noted that 30 represents the number of the schools sampled but the number of respondents far exceeded this and was a total of 520 learners. A table of random numbers in Lind *et al.*, (2005, p. 721) was used to select the actual schools within each strata. The map in Appendix A illustrates the actual location of the sampled schools in KwaZulu-Natal. The student sample was limited to grade 12 learners as these learners are more likely to be thinking about tertiary education and institutions. The full population of the Grade 12 learners who were doing both Maths and Science at selected schools was included in the sample as only they would be considered for the Foundation programme and therefore their opinions were sought. The researcher envisaged that this will result in a sample size of at least 600 respondents. The researcher was able to get the total number of learners at these schools (857596 learners) but not the total number doing Mathematics and Science. Using this population in a sample size calculator with a 99% confidence level the result was that a sample size of 519 was needed. The actual responses which was 520 for the quantitative study is therefore very good considering that the actual full population would be a subset of the 857596 learners, i.e. it should only be those doing Mathematics and Science and only those in grade 12.

5.6.1 Focus Group Sample (Stage 1)

The qualitative research was done by conducting focus group interviews with respondents from disadvantaged schools, who are within the target market but not included in the quantitative, Stage 2, sample, to identify factors that are used in choosing a programme and which institutions and programmes the respondents see as competition to the UKZN Foundation Programme. The schools chosen for the focus group interviews were chosen using convenience sampling based on their location. The information gathered from the focus group interviews was used to design the survey questionnaire.

Literature points out that conducting just one focus group is not advised (Nieuwenhuis, 2007b, p.90 and Cohen, *et al.* 2007, p.288). Therefore the researcher conducted 3 focus group interviews on 3, 5 and 25 June 2009 also considering time and cost constraints which are limitations of this study. Welman, Kruger and Mitchell. (2005, p.202) advises that the group size should not be fewer than six participants and no more than twelve, therefore the researcher asked for group sizes of eight to ten participants which also made allowance to cover possible “no shows” (Greef, 2005, p.304). Students doing Mathematics and Science in Grade 12 were asked to volunteer to participate in this research.

Once the data for Stage 1 was collected and analysed it was used for the development of Stage 2 which comprised the quantitative research. This chapter outlines the research design for Stage 1, its data collection and analysis. The research design for Stage 2 is discussed in chapter 8.

5.7 Stage 1: Qualitative Research Design (Stage 1)

“Qualitative interviews aim to see the world through the eyes of the participant as they can be valuable sources of information” (Nieuwenhuis, 2007b, p.87). Therefore the researcher found it appropriate to use the qualitative research technique for the first stage of this research.

5.7.1 Justification for the use of Focus Groups

Nieuwenhuis (2007b, p.87) argues that the benefit of using the semi-structured interview is that it allows the exploration of the research problem through probing and clarification of answers. The researcher used the three probing strategies outlined by Nieuwenhuis (2007b, p.88) in the focus group interviews: *Detailed-orientated probes* (using ‘who’, ‘where’ and ‘what’ to understand the answers given by the participants), *Elaboration probes* (to ask the participants to tell you more about an answer) and *Clarification probes* (used to check if your understanding of what was said is accurate). Another advantage of the focus group interviews for this study was that it allowed the researcher to confirm and fine-tune the factors identified in the literature and identify others before the questionnaire was developed thus making them appropriate to the target market and the focus of this study. Focus groups are also advantageous as “people feel relatively empowered and supported in a group situation where they are surrounded by others” (Strydom, 2005, p. 301). This view is also supported by Nyamathi and Shuler 1990, cited in Greef, 2005, p.312) who state that “focus groups create a fuller, deeper understanding of the phenomenon being studied”. Welman, Kruger and Mitchell (2005, p.203) also state that allowing participants to share their opinions may lead to new ideas amongst the different respondents. One disadvantage of focus group interviews is that some

participants could feel intimidated by other members of the group (Welman *et al.*, 2005, p.204). To overcome this the researcher monitored the contribution and ensured that every participant was given a chance to answer and encouraged individuals to give their opinion where it seemed like they were feeling intimidated.

5.7.2 The Focus Group Interview Guide

The focus group interviews were done through a series of open-ended questions. The advantages of using open-ended questions according to Maree and Pietersen (2007, p.161) are that:

- “the respondents can give honest answers and in detail,
- the respondent’s thinking process is revealed,
- complex questions can be adequately answered,
- thematic analysis of responses will yield interesting information, categories and subcategories”.

No sensitive questions were included. The interviews were conducted by the researcher and recorded with a dictaphone with prior permission. This allowed the researcher to fully engage in the discussion.

The researcher was guided by the following phases of a focus group interview offered by Welman *et al.* (2005, p.202):

- “the researcher introduces the topic to the focus group
- the researcher sets rules indicating for example, that only one person should speak at a time
- the researcher will guide the open group discussion (with the planned questions).
- the session ends with each person giving a final statement that may not be challenged”

The focus group interview included the following questions (Appendix G);

1. This is an exciting stage in your life as you are now at the end of your schooling and you have many dreams about your future. How many of you would like to attend university after completing school?

This question was asked to ascertain whether the participants were even considering studying at university. The researcher did not want to assume that this would be the case. This target market experience a wide range of financial, social and economic difficulties (Science Foundation Programme, 1998, p.7) that it may be possible that they find these difficulties insurmountable and therefore not even contemplate a university education. This would influence the contribution they would make to this research.

2. Who would you say influences your decision about attending university?

Probes:

Parents

Friends

Teachers

Siblings

Other relatives

Literature points out that significant persons influence the student's decision about which university to attend (Chapman, 1981 cited in Joseph and Joseph, 2000, p.40). It was therefore necessary to establish who is highly influential in the target market's decision as this may possibly be one of the factors the researcher aims to identify in Objective 1. The probes had been identified in literature (Chapman, 1981 cited in Joseph and Joseph, 2000, p.40 and Maringe, 2006, p.473) and the researcher needed to establish if they were applicable to the target market that this study was focused on. After the participants answered the question the researcher checked which of the above probes were not mentioned and asked specifically about them.

3. What are some of the things that influence your decision about which university to attend?

This question aimed to address Objective 1 of this study which aimed to establish the choice factors. As potential applicants are faced with a wide range of tertiary institutions and qualifications to choose from, what they look for in an access programme and university becomes important. If the factors that the target market is looking for do not match what the university has to offer then they may go elsewhere. The probes were identified from a variety of literature:

- *Reputation of the University and the specific programmes* (Hayes, 1989; Moogan *et al.*, 1999; Soutar and Turner, 2002; Vaughn, 1978 cited in Veloutsou *et al.*, 2004, p.161).
- *The location of the university and the geography of its surroundings* (Veloutsou *et al.*, 2004, p.161).
- *Distance from home* (Soutar and Turner, 2002, p.40).
- *The institution's infrastructure* (Coccari and Javalgi, 1995; Vaughn, 1978 cited in Veloutsou, 2004, p.161).
- *The campus atmosphere* (Soutar and Turner, 2002, p.40).

- *The costs associated with study at the University* (Chapman, 1986 cited in Veloutsou, 2004, p.161).
- *The quality of the teaching staff* (Soutar and Turner, 2002, p.40).
- *The future career prospects and opportunities following graduation from the university* (Chapman, 1986; Hayes, 1989; Newell *et al.*, 1996; Soutar and Turner, 2002 cited in Veloutsou, 2004. p.161-162).
- *Employability* (Bonnema and Van der Walt, 2008, p.318).
- *The quality of life during their studies* (Chapman, 1986 cited in Veloutsou, 2004, p.162).
- *Course content* (Bonnema and Van der Walt, 2008, p.318).
- *The type of course they want to do* (Soutar and Turner, 2002, p.40).
- *Sporting* (Bonnema and Van der Walt, 2008, p.318).
- *Significant persons; friends, parents, high school personnel* (Chapman, 1981 cited in Joseph and Joseph, 2000, p.40).
- *Institution's efforts to communicate with students: written information, campus visits and admissions/recruitment* (Chapman, 1981 cited in Joseph and Joseph, 1998, p.40).

4. *Is there something else that you are considering doing besides going to university? (What are the other things that compete with your decision about attending university?)*

This question relates to Objective 2. For example a student may be considering tertiary studies and may be contemplating to do that at a technikon or corporate university. The other alternatives that the student is considering forms part of the competition the university faces and thus it is important for UKZN to know how these are positioned in relation to the Foundation Programme.

5. *What are some of your important needs that you think should be considered in an access programme?*

Objective 3 aimed to assess whether the needs of access students are incorporated into the way the programme is positioned. Thus it was necessary to find out what the important needs of the target market are. No probes were used.

6. *What are the important factors that you look for at in an access programme and university?*

Probes:

Costs

Financial aid

Location

Leading to employment, future career prospects

Reputation of the university

Institution's infrastructure – library facilities, classroom, computer labs, campus security campus accommodation

Campus atmosphere

Quality of teaching staff

Quality of life during studies

Course content

Type of course you want to do

Sporting

Institution's effort to communicate with students: written information, campus visits, recruitment & admissions

This question was linked to Objective 1. The researcher aimed to identify which factors are important for this target market. Here the researcher expected answers related more to an access programme.

7. The Foundation Programme at UKZN is offered in Pmb and Dbn. Which would you like to study at and why?

The problem of unmet enrolment targets was only a problem on the Pietermaritzburg campus. This problem only began on the Pietermaritzburg campus since UKZN had merged. The Foundation programme in Durban may be internal competition that the Pietermaritzburg Foundation Programme faces (Kioko, 2008).

8. What are your opinions about UKZN?

9. Is there any reason that you would not want to study at UKZN?

Questions 8 and 9 were included to find out what the target market thought about UKZN. If there are negative perceptions about UKZN this would affect the Foundation Programme meeting its enrolment target.

10. What do you think about the Foundation Programme (in science) at UKZN?

This question aimed to establish the perceptions about the Foundation Programme as negative perceptions could be contributing to the research problem.

11. What do you think about the Foundation Programme at UKZN compared to other institutions?

Question 11 is linked to Objective 2. Comparison of customer perceptions of competing products is part of the positioning process.

12. Which are the other institutions that you would consider attending?

This question is also linked to the positioning process and is part of Objective 2.

13. Are you aware of any advertising that the CSA does?

Questions 13, 14 and 15 were aimed at answering Objective 4. The researcher wanted to find out what perceptions the target market had of the CSA's advertising strategies.

14. The CSA uses ex and current students to visit schools and advertise the programmes. What do you think about this?

The CSA uses students as the main form of promoting itself. The researcher wanted to assess whether the target market found this a suitable and appropriate method.

15. Do you think there is a more appropriate way to advertise the programme?

The target market may have some ideas of what would work best for them. Therefore it was important to hear what they believed would have been more appropriate.

16. The University of Natal and University of Durban Westville merged to form one institution – UKZN. What you do think about this merger?

Objective 6 aims to evaluate the effect of the merger at UKZN on the target market to try to understand if this contributed toward the research problem. Questions 16, 17 and 18 are linked to this objective.

17. How do you view the new UKZN?

18. Has the merger affected your decision about which university to attend?

19. The CSA also offers another access programme which is the Augmented Programme. Have you heard of it?

The Augmented Programme was introduced on the Pietermaritzburg campus in 2007. This may have contributed to the research problem. Questions 19, 20 and 21 have therefore been asked and are linked to Objective 7.

20. What are your opinions about the Augmented Programme?

21. How do you view the Augmented Programme compared to the Foundation Programme?

5.7.3 Focus Group Procedure

The focus group interview was conducted at the school to make it convenient for the participants. The use of a classroom was requested so that participants would not be distracted by other students or other happenings outside the venue. The time to conduct the interviews was negotiated with the principal of the school ensuring that it did not disrupt the learners' school activities.

The researcher was a complete stranger to the participants and tried to make them feel at ease right from the start. Light refreshments were provided as an incentive for the participants and served at the end of the interview to avoid distracting the participants from engaging in the interview. This may be considered to be a minor incentive however researcher was limited by funding for this research.

5.7.4 Data Analysis

Stage 1 included a qualitative approach to gather data from the target market. In the analysis of the qualitative data the researcher attempted to understand the research problem specifically with input from and in the context of the target market. Thus in the interviews the researcher did not only rely on counting up the number of respondents that agreed with a particular statement but checked if there was general agreement and in the cases where there were opposing views, reflected on this in the findings chapter. In analysing the data the researcher made use of a content analysis approach. Cohen *et al.* (2007, p.475) define content analysis as "the process of summarising and reporting written data – the main contents of data and their messages". "Content analysis involves counting the frequencies and sequencing of particular words, phrases or concepts in order to identify words or themes." (Welman *et al.*, 2005, p.221). The numbers reported on for each theme identified do not represent the number of respondents who agreed with the statement but it represented the frequency

for which that particular issue came up in the interviews, i.e. the number of times this theme came up across all three interviews. It was thus more appropriate that the percentages given for all the data, except the biographical data, were worked on the total number of responses, not the total number of participants. According to Nieuwenhuis (2007b, p.87) the data gathered from a qualitative interview is unique and rich. Cohen *et al.*(2007, p. 461) state that “qualitative data often focus on smaller numbers of people than quantitative data, yet the data tend to be detailed and rich”. Therefore the researcher chose this approach for Stage 1 of the data collection.

After each focus group the researcher made notes about the interviews summarising the main points. The tape recordings were listened to a number of times to become familiar with issues that arose. An assistant was employed to transcribe the data from the tape recordings. Instructions were given on how to capture the interviews and that they needed to maintain the privacy and anonymity of the respondents. Due to unforeseen circumstances the assistant was only able to transcribe two of the interviews leaving the researcher to transcribe the last one. However, although time consuming for the researcher, this was beneficial as it helped the researcher become more familiar with the data. The transcription was done in three separate Word 2003 documents.

Once the transcriptions were done the researcher re-listened to the tape recordings while reading what was actually typed out in the Word documents to verify them as a correct reflection of the interview. The transcribed data from the Word documents was then imported into Nvivo version 8 for analysis and interpretation. The three focus group interviews were put into one project in Nvivo so that the same themes could be used. According to Ryan and Bernard (n.d. cited in Welman *et al.*, 2005, p. 211) “theme identification is one of the most fundamental tasks in qualitative research”.

The results from focus group interviews were compared. The researcher identified themes that could be used in the design of the written questionnaire (Welman *et al.*, 2005, p.211). Once this was done the researcher read through the text and coded it by creating tree nodes and nodes using NVIVO in order to create themes and sub themes. The text identified as nodes or themes was highlighted. Each node or theme was given a short description to help illustrate that portion of the text. The themes were used to formulate hypotheses for the quantitative research in relation to the objectives of this study.

Nieuwenhuis (2007b, p.113) states that “trustworthiness is of the utmost importance in qualitative research”. To ensure the trustworthiness of the data the researcher used a peer researcher

(Nieuwenhuis, 2007b, p. 80 and 86) to verify the researcher's understanding of the analysed data. The peer researcher who has a higher education background independently read through the data and the themes after the researcher had completed this process. Following this a discussion took place regarding any ambiguities. The peer researcher was also present during the focus group interviews and thus was able to verify the data.

5.8 Ethical Requirements

The issues of consent in this study concern being granted approval from four levels: the management of the CSA, Department of Education and principals of the sample schools to conduct this research as well as the Research Office at UKZN.

The researcher dealt with these ethical issues by firstly writing to the Head of the CSA seeking permission to conduct this research as this research is specifically dealing with a problem experienced by the CSA at UKZN. Approval from the Head of the CSA was granted and is included as Appendix B.

Permission was also sought from the DoE as these schools fall under their jurisdiction. The DoE was also requested to grant approval by way of a written letter to the Principals of the sample schools to allow this research to be done (Appendix C). Approval from the DoE was granted and is included as Appendix C.

The principals of the sampled schools were then contacted seeking their permission for this study. This proved to be a difficult task as some schools did not have telephones, email addresses or fax machines and were located in rural areas far from access to such amenities. Permission for this research was however eventually granted by the sampled schools. These were submitted to the Research Office with the researcher's ethical clearance application. An application was made to the University of KwaZulu-Natal's Ethical Clearance Committee to obtain ethical clearance for this study as is required for all research done at UKZN. Ethical clearance was given by the University (Appendix D).

As the participants may be under 18 years old informed consent was required from their parents or guardians. The informed consent letter (Appendix F) was sent to the schools prior to the administering of the questionnaire. Participants were requested to take this form home to their

parents or guardians seeking their permission for them to participate in this study. The completed forms were collected from the participants on the day the questionnaires were administered.

Throughout this study the researcher complied with ethical standards ensuring utmost care and respect was given to all the participants.

5.9 Conclusion

This chapter was the first of the two research methodology chapters. A triangulation methodology was used which combined the literature review, the focus group interviews of Stage 1 and the questionnaires of Stage 2. The literature was used to develop the focus group interviews and the findings of the focus groups was used to develop the questionnaire. These are all brought together in the final discussion and conclusion. In this chapter the statement of the problem was discussed with the main research question and objectives being spelt out. It included a discussion of the research design for this research as a whole and specifically focused on the design for Stage 1 of the research. These findings are presented and discussed in the next chapter.

Chapter 6: Findings and Discussion: Stage 1

6.1 Introduction

This chapter presents the findings and a discussion of the focus group interviews. The focus groups represented the first of two stages in the data collection process of this study and were qualitative in nature as outlined in Chapter five.

Given the uniqueness of the target market, as discussed in previous chapters, it was necessary to situate the researcher's understanding of the literature within the context of the target market. Thus the purpose of this stage of the research was to augment that understanding of the literature with the research problem and so design an appropriate questionnaire. In other words, the findings and discussion that emanated from the focus groups, presented here, informed the questionnaire design. The questionnaire represented the second stage of the data collection process. This stage of the research added value to this study as it was part of the triangulation approach taken. According to Patton (2002, p.206 cited in Strydom and Delport (2005, p. 314) 'by using triangulation the strengths of one procedure can compensate for the weaknesses of another approach'.

6.2 Description of Focus Group Sample

Focus group interviews were held with three High schools from the Pietermaritzburg area. These schools fall within the target market of the CSA, i.e. disadvantaged schools, and were chosen using convenience sampling as explained in Chapter 5. The sampled schools for Stage 1 consisted of schools with a decile of 1 to 8 ensuring that they were disadvantaged schools and were not the ones selected for quantitative Stage 2 of this research. To protect the anonymity of the schools and the participants their real names have not been mentioned. Schools are referred to as School A, School B and School C.

The participants were Grade 12 learners who were currently doing Mathematics and Science subjects. Their participation was completely voluntary. School A had 12 participants, School B had 11 participants and School C had 12 participants. The gender breakdown of the participants was: 9 (75%) females and 3 (25%) males from School A; 5 (45%) females and 6 (55%) males from School B; and 5 (42 %) females and 7 (58%) males from School C, i.e. combined 54% (19 out of 35) were female and 46% (16 out of 35) were males thus representing a relatively even split.

6.3 Presentation of Findings and Discussion of Focus Group Interviews

Question 1. *This is an exciting stage in your life as you are now at the end of your schooling and you have many dreams about your future. How many of you would like to attend university after completing school?*

All the participants except one said that they would like to attend university after completing school.

This meant that the participants' contribution to this study was valuable and appropriate as no intention to study might have meant that they would not have thought about or have an interest in the issues that the researcher planned to discuss.

Question 2. *Who would you say influences your decision about attending university?*

In all the groups the participants agreed that there were both positive and negative influences in their decision about attending university. These are presented are in Table 6.1 below and followed by a discussion.

Table 6.1: Positive and Negative influences about attending university

Codes	Frequency	Percentage	Themes
<i>Positive Influences</i>			
Parental influence	8	20%	1. Parents
Family (other than parents)	7	18%	2. Family
Teacher	6	15%	3. Teacher
Self-motivated	6	15%	4. Self-motivated
Home conditions	5	13%	5. Other
Friends	4	10%	6. Friends
Celebrity	2	5%	5. Other
A motivational speaker	1	3%	5. Other
A stranger's life	1	3%	5. Other
Total	40		
<i>Negative influences</i>			
Family (Other than parents)	4	40%	2. Family
Friends	2	20%	6. Friends
Community	3	30%	7. Community
University students	1	10%	8. University Students
Total	10		

A company's marketing decisions can be influenced by the buying decision process of their customers. According to Wilson *et al.* (1992, p.111), sometimes the buying decision process can involve several people with distinct roles, one being the influencer whose comments affect the decision made.

Although literature provides a range of the possible significant persons who influence a student's decision of which university to attend (Chapman, 1981 cited in Joseph and Joseph, 2000, p.40) it was still essential to ascertain which of them are applicable for the target market of the CSA. The percentages here have been calculated on the total number of responses given not the total number of respondents.

Parental influence came up as the most frequently mentioned influence (20%) regarding the participants' decision about attending university. Many of the participants were encouraged by their parents to attend university. Chapman (1981, cited in Joseph and Joseph, 1998, p.93) believes that of all the significant persons the parents are the ones who have the greatest impact on the students' choice. Parents play an important role in their children's lives and spend a lot of time with them and their influence could impact greatly on their choices.

Family included siblings, aunts and uncles and grandparents (18%). In the case of grandparents sometimes they have taken on the parental role as the grandchildren live with them. In some of the cases the family members have also been to university themselves and have succeeded and may also be looked at as role models.

Some participants indicated that *teachers* were influential in their decision about attending university (15%). Teachers spend a lot of time with students and also have some knowledge about tertiary institutions and students often look to them for guidance as some of their parents may not be educated or have this information. Maringe (2006, p.473) suggests that universities could link up with high school teachers who are key influencers in students decision making about higher education study.

Some participants indicated that no one had influenced them in attending university and that they were *self-motivated* (15%). They were very determined to be successful and improve their and their families' lifestyle.

This was followed by *home conditions* (13%) which the participants also said had influenced them. Many of the participants expressed their sadness about their poverty in their homes and families and really felt that it was up to them to change this situation. They just wanted their families to “lead a normal life”.

Friends came up as another influence (10%). Joseph and Joseph (1998, p.91) state that ‘significant persons’ influence the student in three ways: 1) comments made by these people shape the students’ expectations of a particular tertiary institution, 2) they may offer direct advice on which institution the student should choose, and 3) the advice of friends that attend a particular institution also influences their decision. The participants also indicated that “friends encouraged each other to be successful by getting a good education, a good job and improving their lifestyle”.

There were also *other* influences in the participants’ decision. Some participants mentioned that they were influenced by a “celebrity”. This included actor Will Smith and pop star Michael Jackson. Their success motivated these participants to do better and also achieve their dreams. The participants were able to relate to them as they loved the media and pop music. One of the participants was inspired by a “motivational speaker” to attend university. The speaker encouraged the participant saying that “studying at university was not easy but one should really be proud of being there”. Another participant was influenced by a “stranger’s life”. In this case the “person was fighting against cancer and shared her life experiences” with the participant. After listening to the stranger the participant was motivated to “dream bigger and achieve those dreams”.

The discussion with the participants showed that they not only had people that positively influenced them but that there were also people who *negatively influenced* them by discouraging them from going to university. These included family members, friends, community members and university students. Some of the reasoning behind this negative advice included the students “not having enough money therefore not being able to afford university studies and life”, being discriminated against because of their “disadvantaged background”, “going to university being a waste of time”, or “doing a science degree might make you go crazy and you will be influenced to drink and party”. Some of the female participants mentioned that they were often told not to go to university as “it will be a waste of time for females and they are not seen as equal to males but should rather get married and have children”. In some of these cases the individuals who tried to negatively influence them had not completed matric nor studied further and the participants felt that they might be

jealous of their success. However the participants felt strongly that this negative advice should be ignored and that they should focus on achieving their dreams.

Question 3. *What are some of the things that influence your decision about which university to attend?*

Table 6.2: Factors influencing choice of university

Codes	Frequency	Percentage of responses Out of 94	Themes
Communication from university	10	11%	1. Communication from university
Financial Assistance	8	9%	2. Financial assistance
Reputation of the institution	8	9%	3. Reputation of the institution
Career and Qualification	7	7%	4. Career and qualification
Leading to employment	6	6%	5. Leading to employment
Positive feedback from university students	6	6%	6. Positive feedback from university students
Location – away from home	5	5%	7. Location – away from home
Location – near home	5	5%	8. Location – near home
Atmosphere of university	5	5%	9. Quality of life while studying
Security	5	5%	10. Security
Cost of fees	4	4%	2. Financial assistance
Quality teaching staff	4	4%	11. Quality education
Sports	4	4%	12. Sports
Infrastructure of university	3	3%	13. Infrastructure of university
University product	3	3%	14. University product
Endorsed by companies	2	2%	5. Leading to employment
Quality education	2	2%	11. Quality education
Entertainment	2	2%	9. Quality of life while studying
Best for qualification	1	1%	4. Career and qualification
Want to be independent	1	1%	15. Want to be independent
Legitimacy of university	1	1%	3. Reputation of the institution
Quality of life while studying	1	1%	9. Quality of life while studying
Want to be with friends	1	1%	9. Quality of life while studying

It is believed that the decision about where to attend university is a difficult task for most high school pupils as it is a highly involved decision which often affects their future life path (Veloutsou *et al.*, 2004, p.160). Potential applicants are faced with a wide range of tertiary institutions and qualifications to choose from. Consumers use a set of criteria based on features or benefits when evaluating and deciding amongst the competing alternatives in a product or service (Palmer, 2011, p.157 and Hawkins *et al.*, 1998, cited in Yamamoto, 2006, p.561). The evaluative criteria are also applicable in the decision of which university to attend. In South Africa there are a large number of

universities that students can choose from. In the focus groups the participants agreed that the following criteria were very important to them but some were more important than others:

Communication from the university (11%) influences the participants' decision about which university to attend. The communication from the university includes written information in the form of posters, letters etc, open days, visits to schools and advertising through various media etc. Joseph and Joseph (1998, p.95) conclude that "promotional activities developed by tertiary institutions should support their market positioning and reflect the importance of the value of education and degree (content and structure) attributes". The participants were particularly keen on visits to their schools as this would give them an opportunity to ask questions thus making it two-way communication. They also felt that written communication provided important information for them regarding the courses they want to do. In some cases the participants felt that the communication from the university would not influence them if they already had decided where they were going.

Financial Assistance (9%) would influence many of the participants into going to a particular university. Financial assistance could be either in the form of a bursary or a loan. This is probably very important for the target market as they continually mentioned their difficult financial circumstances and the costs of studying at university. Students from the target market also come from disadvantaged schools where they either pay no fees or a minimal amount of fees. The lack of finances was also one of the reasons why participants were discouraged from studying at university. Limitations on financial resources can increase the impact of strains normally associated with studying (Foster, 1995, cited in Robotham and Julian, 2006, p.111). Participants agreed that "cost of fees" was an important factor in deciding which university to attend. Veloutsou *et al.* (2004, p.161) states that the costs associated with studying at university could be related to University fees, cost of living in the area and the possibility of securing financial aid. "Students who rate the financial aspects highly consider the practical implications of being able to afford an education" (Bonnema and Van der Walt, 2008, p.321). Repeatedly in the interviews participants mentioned the lack of finances and its impact on their university education. The cost of fees is thus a real concern for them. Some even mentioned that they would go to an institution based on the cost of fees being lower even if that isn't their first choice.

Participants also agreed that the *reputation of the institution* (9%) would influence them. Veloutsou *et al.* (2004, p.161) suggests that reputation of the institution "is usually related to the earlier

performance of the institution rather than its current performance, structure and offering". Participants also mentioned that their parents would want them to go to an institution with a good reputation. The reputation of the institution speaks of its quality, its history, its staff and its general management. Participants also felt that the reputation of the institution would help them when they are searching for a job. The "legitimacy of university" was another factor identified by a participant that would be used in choosing a university. Learners are faced with a wide choice on institutions to choose from, some of which are not authentic and going to one of these institutions may not place the participant in a good stead for employability. They had also seen the success of individuals that have gone to the legitimate university.

Career and Qualification (7%) also came up as one of the influences in the decision of which university to attend. Participants who were very sure of what they wanted to study said that they would go to the institution that offered the qualifications or career they wanted to do and also who are known to be the best in that qualification. The type of career and qualification were identified in the literature by Soutar and Turner (2002, p.40) who spoke of the type of course students want to do and Bonnema and Van der Walt (2008, p.318) who spoke about the course content which includes the academic and practical components of the course affecting students' choice. Participants are also looking for a qualification that is of a high standard as this would better equip them for the working environment. Participants would choose a university that is "best for the qualification". This is closely related to the career and qualification factor. Getting a good education is very important to the participants and they see this as their life-line to change to circumstances at home. By going to the university that is best for the qualification participants felt that they would be empowered to get the best jobs in their field.

Participants agreed that a university qualification *leading to employment* (6%) was very important to them in their decision of which university to attend. Throughout the focus group participants continually mentioned their poor background and how they were determined to change this through education and getting a good job. Therefore a university that could help by leading them to good employment was essential for them. Bonnema and Van der Walt (2008, p.318) referred to employability of a university as aspects of the institution that will enhance the chances of gaining employment after the completion of studies. This also shows a concern for long-term need fulfilment and not just the short term aspects of being a student (Bonnema and Van der Walt, 2008, p.319). Some participants also wanted some involvement from the institutions to help them find a job. In making their decision about which university to attend some participants said that they

would choose the one that is “endorsed by companies”. The participants’ main aims were to succeed in their education and to get a good job that will help them change their circumstances at home. Thus being employed by a successful company is very important to them. Therefore they wanted to go to the university that companies speak highly of regarding the quality of graduates they produce and will likely employ graduates from.

Positive feedback from university students (6%) was found to be an influence in the decision about which university to attend. The participants felt that the university students would not lie to them and therefore their opinion could be relied upon.

Location (away from home and near home) (5%) was another factor in deciding which university to go to. Some of the participants wanted to be near their home and families whilst the others wanted to be far away from home. The reason given for those who wanted to be closer to home was that they could visit their parents whenever they wished. Being away from home for some of the participants meant that they could forget about all the problems at home and focus on their studying. They wanted to be away from their environment so that they can learn to be responsible. They also felt that there was too much of pressure at home. Soutar and Turner (2002, p.40) say that the distance from home is due to the travelling time, i.e. to get to each university and access to public transport. Some of the participants wanted to avoid the travelling time making it easier for their studies.

Quality of life while studying (5%) was important to the participants when deciding which university to attend. The quality of life while studying refers to the surroundings and available facilities that become important as students will spend a few years of their lives living in the area (Chapman, 1981, Coccari and Javalgi, 1995 cited in Veloutsou *et al.*, 2004, p.162). The participants felt that the surroundings would help them relax and enjoy their stay while at university. Some of the participants agreed that the “atmosphere of university” does influence their decision about which university to attend. Soutar and Turner (2002, p.40) state that this could be either a quiet or lively atmosphere. Some participants felt that they were not going to university for parties and preferred an atmosphere that was conducive to studying. On the other hand, there were some participants that wanted a lively atmosphere with good entertainment. “Entertainment” was one of the factors that would influence the participants in choosing a university. Here however, there were mixed views. Some wanted entertainment while others didn’t as they felt that this was not the reason for them going to university. They were strongly focused on preparing for their future. The

entertainment included parties at which they could see popular artists. Some participants would choose a university because they “want to be with friends”. If their friends were going to a particular university then they would go there as well. Going as friends to an institution may make it less intimidating and a more enjoyable experience.

Security (5%) was very important to some participants. Some of the participants said that this would be the most important factor for them. They wanted to go to an institution where they felt safe. Good security would allow them to focus on their studies.

A deep concern expressed by the participants was their desire to change their circumstances and they believed that they could do this through obtaining a *quality education* (4%). The participants defined ‘quality education’ as teachers who are serious, helpful, supportive and able to explain things when needed. This also had to be balanced by not spoon-feeding the students but giving them an opportunity to also work on their own. “Quality teaching staff” was identified by Soutar and Turner (2002, p.40) as a factor that influences an individual’s decision about which university to attend. Some participants also agreed that this was a factor that they would consider in making their decision. The participants agreed that they would depend on them for guidance and expect them to be supportive towards them. According to Garden (2003, p.165) “potential students seek institutions that boast highly qualified lecturers, as highly qualified lecturers would be seen as an indicator of a quality university and therefore quality education”.

Bonnema and Van der Walt (2008, p.318) explain that *sports* (4%) includes the opportunities for and the quality of sport at the institution. Participants were clearly divided in whether this was a factor that would influence their decision about which university to attend. Some participants felt strongly that they were not going to university to play sports and thus this was not important to them, whilst other participants who enjoyed playing sports mentioned that they would go to an institution that is well known for its sporting activities and one that also allows them time to play sports. They felt that this was an important part of relaxing and de-stressing. According to Bonnema and Van der Walt (2008, p.321) a university being “sporting also implies a number of social factors such as winning, being part of a team, team social events and meeting people”.

Infrastructure of university (3%) was another factor that would influence some participants in their decision about which university to attend. Coccari and Javalgi (1995) and Vaughn (1978) (cited in Veloutsou *et al.*, 2004, p.161) refer to the institution’s infrastructure such as the library facilities,

classrooms, computer labs, campus security and the university accommodation. The participants were particularly interested in laboratory facilities as this exposure was something that they lacked during their schooling. Many of the disadvantaged schools are known to not have any laboratories or equipment. “During the apartheid era resources were lavished on schools serving white students while schools serving the black majority were systematically deprived of qualified teachers, physical resources and teaching aids such as textbooks and stationery” (Fiske and Ladd, 2006, p.96).

Participants pointed out that they wanted to see the *university product* (3%), i.e. a successful graduate of the university. The university product spoke of the institution’s success and made it more tangible for them. Their success was encouraging and also made it seem more attainable for the participants. The university product speaks of the institution’s ability in grooming and guiding its students to achieve their career goals.

A participant would choose a university because they *wanted to be independent* (1%). This is their time to grow and learn to do things for themselves. They want to go to a university that encouraged them in this regard as well as be away from home so that they can rely on themselves.

Thus for this target market there are specific factors or attributes that are important to them in deciding which university to attend. The level of importance is unique to them because of their backgrounds and needs.

Question 4. *Is there something else that you are considering doing besides going to university?*

The participants were also considering working (11 references) as an alternative to going to university. This varied between finding a job, doing volunteer work to gain experience or working in a family business. There was a sense of urgency in making money so that they could improve their home circumstances. Some of the participants said by working immediately they could start earning money sooner and would not have study loans that they needed to pay back. On the other hand some participants felt that by working immediately there was a limit on the salary one could earn and having a qualification would help earn a better salary.

Question 5. *What are some of your important needs that you think should be considered in an access programme?*

Table 6.3: Needs

Codes	Frequency	Percentage of responses
		Out of 11
Financial assistance	3	27%
Lab facilities	2	18%
Making us feel welcomed	1	9%
Motivate us	1	9%
Provide job experience	1	9%
Safety and security	1	9%
Health	1	9%
Place to buy food	1	9%

According to Kotler and Armstrong (2004, p.199) and Cravens (2000, p.85) the first stage of the buyer decision process starts with a *need recognition* where the buyer recognises a problem or a need. The target market for the Foundation Programme comes from a unique background which might be different from the ‘average’ student that enters university. This background is likely to influence their choices, their likes and dislikes and most importantly their needs (Chetty, 2006, p.148). Only a few answers were given to this question. This was because the rest of the group agreed with aspects by nodding of their heads which indicated general agreement. As there were only a few codes which were quite different no further themes were necessary to establish in this question.

The socio-economic background that SFP students come from is associated with a number of difficulties (Science Foundation Programme, 1998, p.6). Often the level of poverty is extremely high and shortages of resources like food, water, transport and housing are not unknown amongst the students (Science Foundation Programme, 1998, p.7). A major concern for the participants was their lack of finances to study at university. In a study done by Chetty (2006, p.144) on the needs of students in the Science Foundation Programme at UKZN, *financial support for University Fees* was found to be the 3rd most important need. Pavlich, Orkin and Richardson (1995, cited in Essack and Quayle, 2007, p.74) agrees and states that the financial aid is one of the factors that contribute towards the effectiveness of access programmes and should be provided for students from disadvantaged backgrounds. Thus an important need for them is for the university to provide *financial assistance* (27%) to help them study at university.

The targets market for the CSA are applicants from disadvantaged schools largely from previous Department of Education and Training (DET) schools, i.e. they have been to schools where there is a lack of, or poor, resources such as laboratories, laboratory equipment, library facilities, electricity, telephone, computers, toilets or water and sometimes under-qualified teachers (Grayson, 1996, p.993). Due to this lack of exposure some participants indicated that it is important that their need for *lab facilities* (18%) be incorporated in an access programme. It would be important that this target market is given exposure to laboratories and taught the necessary skills to cope with the degree.

In identifying their needs that should be considered in an access programme, a participant wanted the university to *make them feel welcomed* (9%). Going to university would be a totally new experience for them. They may feel intimidated or afraid as it often is very different to their homes, and schools because of the lack of resources. Participants wanted to feel part of the institution and that the institution wanted them to be there.

A participant mentioned that they would like the university to *motivate them* (9%). Adjusting to university may be difficult for them because of the completely different lifestyle and they may not be receiving the support needed from their families. Rather than just leaving them to 'find their own way', participants wanted the institution to make an effort in motivating them to succeed.

As mentioned already the ultimate goal of some participants was to get a good job that will be financially rewarding. They strongly believe that their education will change the poverty situation in their homes and families. Participants were aware of the difficulties in the job market and want the university to *provide job experience* (9%) for them as this would strengthen their chances of getting into a good job. According to Bonnema and Van der Walt (2008, p.319) they are interested in the long-term need fulfilment and not just the short term aspects of being a student. Participants were confident in what they wanted to achieve with their university education.

Throughout the focus groups the participants were concerned about their *safety and security* (9%) whilst being at university. The need for safety is one of the basic needs according to Abraham Maslow (Kotler and Armstrong: 2004, p.193). Maslow suggested that people need to satisfy their most basic need before satisfying needs of the higher level (Kotler and Armstrong: 2004, p.193). Participants did not want to go to an institution where they did not feel safe.

A participant wanted their need for *health* (9%) to be taken care of. This was relating to having a place to go at university, such as a clinic, if they felt sick. This is another basic need that needs to be met before any higher needs can be satisfied (Kotler and Armstrong: 2004, p.193). Having a place at university to take care of minor illnesses would save them time and make it convenient for them.

A *place to buy food* (9%) was another need that a participant wanted the university to take care of. They wanted this to be near or on campus to avoid them going into town. In a study done by Simpson, Munro and Quayle (2008, p.15) of 792 students at UKZN, it was found that 26.5% of CSA students were highly vulnerable to food insecurity compared to 11% mainstream students. This target market has very limited resources and therefore have more concerns about food. The university would save them time and money if they met this need.

As can be seen in the discussion above the participants wanted some very basic needs to be taken care of in an access programme and/or university. Understanding the needs of customers is very important for every organisation. Universities must know their customers and understand their needs and develop strategies to meet these needs in order for them to be successful in attracting students (Joseph and Joseph, 2000, 43).

Question 6. *What are the important factors that you look for in an access programme and university?*

It was found that the respondents did not have much awareness of access programmes and they agreed that what they would look for in an access programme was no different to what they would look for in a university

Question 7. *The Foundation Programmes at UKZN are offered in Pmb and Westville. Which would you like to study at and why?*

The majority of the participants, i.e. 25 respondents (71%), wanted to study in Westville whilst the rest, i.e. 10 respondents (29%) preferred to study in Pietermaritzburg. The access programmes are offered on both campuses but it is only the Pietermaritzburg campus that hasn't met its enrolment targets. Therefore the researcher wanted to know the participants preferences regarding the campuses and the reasons behind this.

Reasons given for those who wanted to study in Westville:

Participants had been to the campus and were familiar with it. The Westville campus was also closer to the beach. Studying at the Westville campus also meant that they were far away from home and they wanted to leave their environment. Some wanted to go to Westville because the course they want to do is only offered there like Medicine or Dentistry. They were not concerned about additional costs such a travelling as they were intending to live in the university residence.

Reasons given for those who wanted to study in Pietermaritzburg:

Some of the participants wanted to study in Pietermaritzburg because it was closer to home and they wanted to be closer to their families. Some participants also felt that Pietermaritzburg was more focused on studies while Westville had a lot more parties and they felt that students in Pietermaritzburg perform better because of this. Participants also mentioned that they would know more of the students studying in Pietermaritzburg compared to Westville and would therefore prefer Pietermaritzburg. By studying in Pietermaritzburg students are also able to live at home and travel daily and this would be cheaper for them. They were aware of the financial difficulties that their families go through and didn't want to increase this burden.

Question 8. *What are your opinions about UKZN?*

Table 6.4: Opinions about UKZN

Codes	Frequency	Percentage
<i>Positive opinions</i>		Out of 11
Great university	3	27%
Good security and safe	2	18%
Quality education	2	18%
Friendly students	1	9%
Helps the community	1	9%
Lovely campuses	1	9%
Impressed with university students on open day	1	9%
<i>Negative opinions</i>		Out of 4
Does not provide enough career information	1	25%
Have not seen the 'product' of UKZN	1	25%
Inadequate security	1	25%
Slow in responding to applicants	1	25%

This question had a fairly low response rate. This was possibly because the participants agreed with what was being said by nodding of their heads. Most of the responses about the UKZN were positive. Participants thought of the UKZN as a “great university that offers quality education”. There were a few negative responses about the UKZN. These included that the UKZN seems to be slow in responding to applications compared to other intuitions. One participant also felt that the

security on campus was inadequate. Another participant also felt that UKZN did not provide enough career information.

Question 9. *Is there any reason that you would not want to study at UKZN?*

Reasons given here were mainly to do with lack of information such as:

Table 6:5 Reasons for not studying at UKZN

Transcription quote	Frequency	Percentage of responses Out of 4
“Never heard anyone from UKZN talking about my career”	1	25%
“I haven’t heard anyone say, I have learnt responsibility at UKZN”	1	25%
“The quality of sports”	1	25%
“The course I want to do is not offered there (mining)”	1	25%

In assessing why participants would not want to study at UKZN it was mainly because of things that they did not see. The participants wanted to see the ‘product’ of the UKZN, i.e. a successful student and one that has learnt responsibility. Participants were looking for evidence of an impact on the student.

Choice of career came up as another reason why they would not study at UKZN. If a career such as mining was not offered at the UKZN then the student would have to go elsewhere.

Quality of sports was a reason given for why one of the participants would not come to the UKZN. They would rather go to an institution that is well known for its excellent sport opportunities.

Question 10. *What do you think about the Foundation Programme (in Science) at the UKZN?*

School A and B had never heard of the UKZN’s Foundation Programme and therefore were not able to answer this question. School C who had recently heard about the Foundation Programme from a presentation done by the CSA student had the following thoughts about the programme.

“They make it easier for us”

“It shows that they care. They don’t want us to stay at home and do nothing”

“It shows that even though we have lower marks we can do better”

“Most of the people they are staying at home because they have low marks. I think it really supports us.”

In general participants felt that the programme was doing something good for them, giving them another opportunity to go to university.

Question 11. *What do you think about the Foundation Programme at the UKZN compared to other institutions?*

None of the participants had heard about any foundation programmes at other institutions and therefore were unable to answer this question.

Question 12. *Which are the other institutions would you consider attending?*

Table 6.6: Other Tertiary Institutions being Considered by Focus Groups Respondents

Transcription Quote	Frequency	Percentage of responses Out of 4
DUT	1	25%
Rhodes	1	25%
Stellenbosch	1	25%
Boston	1	25%

Students had very little knowledge about the other institutions in the country. They were only able to mention a few other institutions.

Question 13. *Are you aware of any advertising that the Centre for Science Access (CSA) does?*

Two of the schools were not aware of any advertising or promotions that the CSA does. School C was only aware of the CSA because they had recently listened to a presentation done by a CSA student at their school.

Question 14. *The CSA uses ex and current students to visit schools and advertise the programmes. What do you think about this?*

All the participants agreed that the advertising of the CSA through their current and ex students doing presentations at the schools was great.

Table 6.7: Responses regarding students visiting schools

Codes	Frequency	Percentage of responses out of 6
Meet our needs	2	33%
Easier to relate to students from our community	2	33%
Saves us money	2	33%

This form of advertising was believed to be beneficial to the students because it saved them time and money as they didn't have to travel to university to get this information. They also found it easier to relate to students who were from their community. They felt more comfortable to ask questions and were inspired by them. The school that had received a visit from the CSA before the focus group was held, felt that they gained a lot of information from the visit. Many participants don't have access to computers, radios or television so this is the best way of them getting the information.

Question 15. *Do you think there is a more appropriate way to advertise the programme?*

The participants agreed that the visits of students to the schools is the best way of advertising. Other forms of media were thought not to be very successful because of the lack of resources such as computers, television, radios and not many purchase the newspapers.

Some suggestions to advertise the programmes included:

Table 6.8: Suggestions for advertising

Transcription quotes	Frequency	Percentage of responses Out of 5
Use other media such as television and radio specifically Ukhozi station	2	40%
Put up posters	1	20%
Show the university 'product' i.e. a successful graduate	1	20%
Use cellphone advertising	1	20%

The participants made a few suggestions of other ways to promote the programme such as advertising on a radio station specifically Ukhozi. Posters could be put up in the community especially near schools. One participant suggested using cellphone advertising. The need to see a

university ‘product’ i.e. a successful graduate came up at other times in the focus group as well. Participants want to see proof of what the university is able to do for them.

Question 16. *The University of Natal and University of Durban Westville merged to form one institution – UKZN. What you do think about this merger?*

Table 6.9: Merger

Transcription Quote	Frequency
It was good	1
It was helpful to both institutions	1

Most of the participants did not know that the two intuitions had merged. They did not know the reasoning behind the merger. Once this was explained to them as the merger happened to make better use of resources and build up weaker universities, they agreed with the reasoning behind the merger. None of the participants had any negative opinions about the merger. They felt that by doing this both institutions would be on par and thus it was a good move.

Question 17. *How do you view the new UKZN?*

Students still shared the same views expressed in Question 8 about the UKZN.

Question 18. *Has the merger affected your decision about which university to attend?*

The merger had not affected any of the participants’ decision about which university to attend. They gave positive feedback about the merger.

Question 19. *The CSA also offers another access programme which is the Augmented Programme. Have you heard of it?*

Only the participants at School C who recently had the CSA presentation at their school, had heard of the Augmented Programme. The Augmented Programme was briefly explained to all schools.

Question 20. *What are your opinions about the Augmented Programme?*

Participants at School A and B had never heard of the CSA or it’s access programmes prior to this focus group and were therefore unable to answer this question. Participants at School C had to be

reminded of what the Augmented Programme was. There were not strong opinions about the Augmented Programme as the participants felt that they did not have enough information about it. Only one participant said that they would prefer to do the Augmented Programme because it would give them the experience of what they would be doing the next year.

Question 21. *How do you view the Augmented Programme compared to the Foundation Programme?*

Participants at School A and B had never heard of the CSA or its access programmes prior to this interview and were therefore unable to answer this question. Participants at School C felt that they did not have enough information about the programme to answer this question.

6.4 Conclusion

The purpose of this chapter was to discuss the findings of the focus group interviews which was the first stage of the data collection. This data was used to design the questionnaire which formed the second stage of the data collection.

This chapter included a discussion of the factors that the CSA target market looks for in an access programme and university. An unexpected outcome was that this target market was not aware of the CSA's access programme or an access programme at other institutions. They also had very little or no information about the other universities in the country. These outcomes have implications for the second stage of the data collection.

Chapter 7: Research Methodology for Stage 2: Quantitative Survey

7.1 Introduction

This study comprises two research methodology chapters, this being the second. It focuses on Stage 2, i.e. the quantitative part, of the research. A triangulation methodology was used for this study: the literature review was used to develop Stage 1, which was the qualitative focus group interviews, the findings of Stage 1 were used to develop Stage 2, the quantitative questionnaires. All three aspects are brought together in the discussions and conclusion. In this Chapter the design of the quantitative research is discussed. This also includes a discussion of the pilot questionnaire, the survey instrument used and the data collection and analysis. Finally issues of reliability and validity are addressed.

7.2 Quantitative Research Design (Stage 2)

Once the data from the focus groups was transcribed and analysed it was used for the second stage of the research design. Here a positivist approach known as quantitative research was taken to gather primary data from the target market allowing the researcher to generalise the findings. The positivist approach holds that research must be limited to what we can observe and measure objectively (Welman *et al.*, 2005, p.6). The quantitative approach is more formalised and controlled than the qualitative approach (Moutain and Marias, 1990, cited in De Vos, 2005, p.357). In this study the researcher was mainly concerned about the perceptions of the potential applicants so as to quantify the effects of factors, i.e. determine the importance of the factors, on their decision in choosing an access programme. Thus it was appropriate to use the quantitative research methodology to collect data from the target market for this stage of the study.

A written questionnaire survey was used for the quantitative research to gather data from sampled schools within the target market and thus was administered in groups. This method of data collection offers the following advantages (Maree and Pieterse, 2007, p. 156):

- “Many respondents can complete the questionnaire in a short space of time
- Test administrators can check questionnaires for accuracy
- This method is relatively cheap and easy to do
- Respondents can be reached across long distances
- The response rate is optimal
- The interviewer can immediately assist with issues in the questionnaire which are not clear to the respondents”

A disadvantage of this method pointed out by Delport (2005, p. 169) is that some participants could experience difficulties in understanding certain questions and may be too embarrassed to ask for clarification within a group. To overcome this difficulty the researcher ran a pilot questionnaire.

7.2.1 Questionnaire Design

The survey questionnaire contained mostly closed-ended questions which, according to Maree and Pietersen (2007, p.163-164), are advantageous in that:

- they are easy and quick to answer,
- coding and statistical analysis are easy and
- sensitive questions are more easily answered.

The questions for these respondents needed to be clear and easy to understand since the participants speak English as a second language and may have difficulties with the English language (Grayson, 1996, p.994). All these students will be doing English as a compulsory matric subject therefore leaving the questions in English was justifiable, i.e. there was no need for translation. The questionnaire addressed the hypotheses related to the positioning of the access programme using 4 and 5 point Likert scales. The 4 point Likert scales were used to force the respondent to make a decision and not give a neutral answer which would not be helpful. For some questions participants needed to choose one of the following responses: strongly agree, agree, strongly disagree and disagree. Other questions included the following responses: not important, not very important, neutral, important and very important. Questions were also used to explore how respondents rated UKZN's access programme in comparison to other institutions on various factors. A threat to the validity of an instrument according to Pietersen and Maree (2007, p. 218) is that some respondents may say yes to all questions and advise guarding against this by formulating some items positively and some negatively. Thus the researcher applied this in the formulation of the questions. Dichotomous and category questions (Maree and Pieterse, 2007, p. 161-163) were asked to gather biographical information such as gender and home language etc. Anonymity of the participants was guaranteed.

The questionnaire comprised four sections and is included as Appendix H.

Section A

Section A included biographical questions. This data was important to define the respondents and was used for classification of the data. The biographical information requested covered gender, age,

home language, living arrangements and breadwinners. This section was put first to ease the respondents into the questionnaire as it contained no sensitive data and thus there were no risks associated with asking this first.

Section B

This section was related to Objectives 1 and 3. These questions were asked to determine what factors or attributes are important to the target market in their selection of a university. Questions were also aimed at identifying the needs of the target market.

1. Would you like to attend university after completing school?

Question 1 was asked to establish if the respondent was actually intending to go to university after school. As in the focus group, the researcher did not want to assume that this would be the case.

2. In choosing a university, please indicate the level of importance of each factor influencing which university you attend.

Question 2 relates to Objective 1. A 5 point Likert scale ranging from not at all important to very important was used. The purpose of this question was to ascertain what factors are important to the target market and which they use in deciding which university to attend. This study aimed to understand why the Foundation Programme has not met its enrolment targets in the past five years. As potential applicants are faced with a wide range of tertiary institutions and qualifications to choose from what they look for in an access programme and university becomes important. If the factors that the target market is looking for do not match what the university has to offer, then they may go elsewhere. The findings of the focus groups assisted in refining the factors identified in the literature and identifying which were appropriate for the target market. Respondents were asked to rate the following factors in relation to their importance:

- *Communication from the university* (i.e. through written information such as posters or brochures or presentations by a university staff or other forms of advertising). Participants from the focus groups agreed that this was influential in their decision of which university to attend. This among all the factors was mentioned the most number of times. According to Joseph and Joseph (1998, p.95) communication that promotes the university can “reflect the importance of the value of education and degree (content and structure) attributes”
- *Financial Assistance from the University* (loans or bursaries or cost of fees). Costs that need to be covered are related to University fees, cost of living in the area and the possibility of securing financial aid (Veloutsou, 2004, p.161). In the focus groups participants repeatedly

mentioned the lack of finances and its impact on their university education. They even mentioned that they would go to an institution based on the cost of fees being lower even if that isn't their first choice.

- *Reputation of the institution.* Veloutsout *et al.* (2004p.161) suggests that “this is usually related to the earlier performance of the institution rather than its current performance, structure and offering”. Focus group participants mentioned that their parents would want them to go to an institution with a good reputation. Participants also felt that the reputation of the institution would help them when they are searching for a job.
- The university offers the *career and qualification* I want to study. Career and qualification were identified in the literature by Soutar and Turner (2002, p.40) who spoke of the type of course students want to do and Bonnema and Van der Walt (2008, p.318) who spoke about the course content which includes the academic and practical components of the course affecting students' choice. Focus group participants who were very sure of what they wanted to study said that they would go to the institution that offered the qualifications or career they wanted to do and also who are known to be the best in that qualification. By going to the university that is best for the qualification participants felt that they would be empowered to get the best jobs in their field.
- Studying at that university will *lead me to employment*. Bonnema and Van der Walt (2008, p.318) referred to employability of a university as aspects of the institution that will enhance the chances of gaining employment after the completion of studies. Throughout the focus group participants continually mentioned their poor background and how they were determined to change this through education and getting a good job. Therefore a university that could help by leading them to good employment was essential for them.
- *Positive feedback from university students attending that university.* The focus group participants felt that the university students would not lie to them and therefore their opinion could be relied upon. This feedback is regarded as word-of-mouth advertising (Kotler and Armstrong, 2004, p. 476) which can create positive or negative impressions of the university.
- *The university is near my home.* There were mixed responses from the focus group participants regarding the distance of the university to their home. Some of the participants wanted to be near their home and families whilst the others wanted to be far away from home. The reason given for those who wanted to be closer to home was that they could visit their parents whenever they wished.

- *The university is far away from my home.* Soutar and Turner (2002, p.40) explain that the distance from home is due to the travelling time, i.e. to get to each university and access to public transport. Being away from home for some of the focus group participants meant that they could forget about all the problems at home and focus on their studying. They wanted to be away from their environment so that they can learn to be responsible. They also felt that there was too much of pressure at home. They would also avoid the travelling time making it easier for their studies.
- *Quality of life while studying* (university atmosphere, entertainment or being with friends studying at the same university). The quality of life while studying refers to the surroundings and available facilities that become important as students will spend a few years of their lives living in the area (Chapman, 1981, Coccari and Javalgi, 1995 cited in Veloutsou *et al.*, 2004, p.162). The focus group participants felt that the surroundings would help them relax and enjoy their stay while at university. Some participants that wanted a lively atmosphere with good entertainment whilst others preferred an atmosphere that was conducive to studying.
- *Security.* Maslows in his Hierarchy of Needs states that basic physiological and safety needs must first be met in order to achieve the higher needs, i.e. social, esteem and self-actualisation needs (Kotler and Armstrong, 2008, p.143). Some of the participants said that security would be the most important factor for them. They wanted to go to an institution where they felt safe. Good security would allow them to focus on their studies.
- *Quality education* (includes quality of teaching staff). “Quality teaching staff” was identified by Soutar and Turner (2002, p.40) as a factor that influences an individual’s decision about which university to attend. The interviewed participants defined ‘quality education’ as teachers who are serious, helpful, supportive and able to explain things when needed. According to Garden (2003, p.165) “potential students seek institutions that boast highly qualified lecturers, as highly qualified lecturers would be seen as an indicator of a quality university and therefore quality education”.
- *Sports.* Bonnema and Van der Walt (2008, p.318 and 321) explain that *sports* includes the opportunities for and the quality of sport at the institution and “also implies a number of social factors such as winning, being part of a team, team social events and meeting people”. Participants were clearly divided in whether this was a factor that would influence their decision about which university to attend. Some participants felt strongly that they were not going to university to play sports and thus this was not important to them, whilst other participants who enjoyed playing sports mentioned that they would go to an

institution that is well known for its sporting activities and one that also allows them time to play sports. They felt that this was an important part of relaxing and de-stressing.

- *Infrastructure of the university* (facilities e.g. library, laboratories, computer labs, accommodation etc.) Coccari and Javalgi (1995) and Vaughn (1978) (cited in Veloutsou *et al.*, 2004, p.161) refer to the institution's infrastructure such as the library facilities, classrooms, computer labs, campus security and the university accommodation. The participants were particularly interested in laboratory facilities as this exposure was something that they lacked during their schooling. Many of the disadvantaged schools are known to not have any laboratories or equipment. "During the apartheid era resources were lavished on schools serving white students while schools serving the black majority were systematically deprived of qualified teachers, physical resources and teaching aids such as textbooks and stationery" (Fiske and Ladd, 2006, p.96).
- *Seeing successful graduates of the university.* For the focus group participants seeing successful graduates of the university spoke of the institution's success and made it more tangible for them. Their success was encouraging and also made it seem more attainable for the participants. Having successful graduates can be a strength and achievement of an institution which can separate it from others. This is important for its positioning and can help create the "distinctiveness" (McDonald and Payne, 1996, p.97) it needs for a service.
- *The university will allow me to be independent.*
Focus group participants mentioned that this is their time to grow and learn to do things for themselves. They want to go to a university that encouraged them in this regard as well as be away from home so that they can rely on themselves.

3. Please indicate the level of importance of these needs considering an access programme and university

Understanding the needs of customers is a very important aspect in marketing. The need recognition of consumers is the first stage of the buyer decision process (Kotler and Armstrong, 2004, p.199). This question was related to Objective 3. It aimed to identify what needs are important to the target market and thereafter establish if these important needs are incorporated into the way the Foundation Programme is positioned. If the important needs of the target market are unknown and not incorporated into the programme's positioning it may be a contributing reason as to why the programme is not meeting its enrolment targets. The needs asked about came from the focus groups and a study done by Chetty (2006, p.90) on the Foundation students and included:

- *I need the university to make me feel welcome.* Focus group participants wanted to feel part of the institution and that the institution wanted them to be there. Going to university would be a totally new experience for them. They may feel a sense of intimidation or fear as it often is very different to their homes, and schools because of the lack of resources.
- *I need financial assistance from the university* (i.e. loan or bursary). Financial Assistance was a major concern for the participants to study at university. Pavlich, Orkin and Richardson (1995, cited in Essack and Quayle, 2007, p.74) argue that the financial aid is one of the factors that contribute towards the effectiveness of access programmes and should be provided for students from disadvantaged backgrounds.
- *I need the use of laboratories at the university.* The CSA targets applicants from disadvantaged schools largely from previous Department of Education and Training (DET) schools, i.e. they have been to schools where there is a lack of, or poor, resources such as laboratories, laboratory equipment, library facilities, electricity, telephone, computers, toilets or water and sometimes under-qualified teachers (Grayson, 1996, p.993). Because of this lack of exposure some participants indicated that it is important that their need for lab facilities be addressed in an access programme.
- *I need to be motivated in my studies.* Adjusting to university may be difficult for the target market and they may not be receiving the support needed from their families. Rather than just leaving them to 'swim on their own', participants wanted the institution to make an effort in motivating them to succeed.
- *I need the university to help me get job experience.* According to Bonnema and Van der Walt (2008, p.319) this also showed a concern for long-term need fulfilment and not just the short term aspects of being a student. The ultimate goal of some the participants were to get a good job that will be financially rewarding. This is the solution they believe will change the poverty situation in their homes and families. Participants were aware of the difficulties in the job market and want the university to provide job experience for them as this would strengthen their chances of getting into a good job. Participants were aware and focused on where they want their university education to take them.
- *My safety and security needs to be taken care of.* Throughout the focus groups the participants were concerned about their safety and security whilst being at university. The need for safety is one of the basic needs according to Abraham Maslow (Kotler and Armstrong: 2004, p.193). Maslow suggested that people satisfy their most basic need followed by needs of the higher level (Kotler and Armstrong: 2004, p.193). Participants did not want to go to an institution where their safety was compromised.

- *My health needs to be taken care of.* This is another basic need that needs to be met before any higher needs can be satisfied (Kotler and Armstrong: 2004, p.193). Participants wanted their need for *health* to be taken care of. This was relating to having a place to go at university, such as a clinic, if they felt sick. If the student is able to take care of minor illnesses at the university this would save them time and make it convenient for them.
- *I need a place to buy food.* Simpson, Munro and Quayle's (2008, p.15) study of 792 students at UKZN found that 26.5% of CSA students were highly vulnerable to food insecurity compared to 11% mainstream students. Focus group participants wanted this to be near or on campus to avoid them going into town. Because of their limited resources this target market has more concerns about food. Having this taken care of at the university would save them time and money.
- *I need accommodation close to the university.* Students living in campus accommodation facilitates both social and study interaction was identified by Peacock (1995, p.4) identified as one of the seven factors characteristics to the SFP. SFP students experience shortages such as housing because of their background (Science Foundation Programme, 1998, p.7) and this financial limitation can impact on their studying (Foster, 1995, cited in Robotham and Julian, 2006, p.111). Staying in university accommodation would mean that the target market has access to good facilities and it would save them travelling time.
- *I need career advice.* One of the learning outcomes for the Foundation Programme is for "learners to have an awareness of career outcomes" (University of KwaZulu-Natal, 2004b, paragraph 2). This need did not come up in the focus group interviews but was a need identified for the CSA's target market in a study done by Chetty (2006, p.89).
- *I need counselling advice.* According to Pavlich, Orkin and Richardson (1995, cited in Essack and Quayle, 2007, p.74) for an effective access programme one must "ensure that disadvantaged students are catered for in non-academic ways (in terms of financial aid, counselling services etc.)" Counselling advice is thus an important need particularly for this target market.
- *I need mentors to guide me.* Mentors was identified in Chetty's (2006, p.89) study as a need of the target market of the CSA students. This did not come up in the focus groups.

4. What else are you considering besides going to university, after school?

Question 4 aims to identify what the Foundation Programme is competing against in the minds of their consumers. Competition exists even in a university environment (Farrington, 1999, cited in Rowley and Sherman, 2001, p.17). The types of competition the Foundation Programme faces,

apart from other universities, could include Technikons, Colleges, finding employment or working in family business. Competition could exist from those institutions that offer “vocational training”, i.e. the institutions that teach and train one for a specific job (Kioko, 2008). The target market is faced with all these options to choose from after completing their schooling.

5. Who influences your decision about which university to attend?

It was necessary to establish who is influential in the target market’s decision about attending university as this may possibly be one of the factors the researcher aims to identify in Objective 1. Literature points out that significant persons influence the student’s decision about which university to attend (Chapman, 1981 cited in Joseph and Joseph, 2000, p.40). This knowledge will also assist with the advertising strategies for the programme.

6. Would you consider attending another university besides the University of KwaZulu-Natal (UKZN)?

Question 6 relates to Objective 2 which relates to how the Foundation Programme is positioned relative to competing programmes. Walker and Mullins (2011, p.154) state that “positioning refers to both the place a product or brand occupies in customers’ minds relative to their needs and competing products or brand, and to the marketer’s decision making intended to create such as position”. This question aims to help identify how the target market views its competition.

7a. Are you considering doing a Science or Science-related degree?

Question 7a was asked to determine if the respondents are even thinking of doing a Science degree as this is the focus of this study.

7b. If you answered Yes to Question 7a: If you did not meet the entry requirements to go directly into a science degree, would you consider doing an access programme that will allow you to continue with a Science degree thereafter?

This question aims to identify if the respondents would consider the Foundation Programme as a route into a science degree. If they have negative perceptions about an access programme this question will be able to identify that.

Section C

This section related to Objective 2: looking at how the Foundation Programme is positioned relative to competing programmes, Objective 4: the target market's perception of the advertising strategies and Objective 7: the impact of the introduction of the Augmented programme on the numbers.

1. Have you heard about the Foundation Programme at the University of KwaZulu-Natal?

This question related to Objective 4. A clear finding of the focus groups was a lack of awareness of the Foundation programme. Lack of awareness will contribute to the Foundation Programme not meeting its enrolment targets.

2. Have you heard about any Access programmes in Science at other universities?

This question related to Objectives 2 and 4. This was important in looking at the competition the Foundation Programme faces. Walker and Mullins (2011, p.154) state that "positioning refers to both the place a product or brand occupies in customers' minds relative to their needs and competing products or brand, and to the marketer's decision making intended to create such as position" Part of understanding where the competition exist in the mind of the customer is to understand if they have any knowledge of it first.

3. Using the scale below please rate the Foundation Programme at UKZN and Foundation Programmes in Science at other universities on each of the following factors?

Even though you may not have had experience with these universities it is your opinion, i.e. what you think, that matters.

Question 3 has two parts. Firstly it aimed to establish what position the Foundation Programme at UKZN holds for its target market. Secondly it aimed to establish the position that other universities occupy. The focus group participants did not have much knowledge of the other universities therefore the researcher chose to use the historically well known universities in the country. The researcher also chose not to use DUT and Boston College by one participant each that was mentioned once so as to compare similar institutions. Thereafter a comparison was made to determine if the positioning of the UKZN foundation programme is better than its competitors. It is related to Objectives 1, 2 and 3. This was important in determining the positioning of the Foundation programme relative to its competition.

4. Have you heard about the Augmented Programme at the University of KwaZulu-Natal?

The researcher aimed to find out if the introduction of the Augmented Programme on the Pietermaritzburg campus is a contributing factor to the Foundation Programme not meeting its enrolment targets. Question 4 assisted by firstly establishing if there is an awareness of this programme. It is related to Objective 7.

5a. The Foundation Programme is an access course for students from disadvantaged schools who do not meet the requirements for direct entry into a Science degree. It is offered on both the Pietermaritzburg and Westville campuses of the University of KwaZulu-Natal. If you were going to apply for the programme which campus would you like to study at?

The problem of the unmet targets has been a problem for the Pietermaritzburg campus only. Question 5a is related to Objective 2.

5b. If you apply, why would you choose that campus?

If there is a preference of studying on a particular campus it is important for the CSA to be aware of this. This can be fed into the advertising strategies and in particular address the problem faced on the Pietermaritzburg campus.

6. Are you aware of any advertising that the Centre for Science Access (CSA) at UKZN does?

Question 6 related to Objective 4. A lack of awareness of the programme could be a contributing factor as to why the foundation programme is not meeting its enrolment targets.

7. Which of the following ways of advertising do you think the CSA should use to reach you?

Using the appropriate channels is an important part of advertising. This question was asked to ascertain what channel was appropriate for the target market of the CSA. The following probes which were obtained from literature and the focus group interviews were used:

- Send CSA students (from our community) to visit our school and do a presentation about the access programmes
- Send a staff member to visit our school
- Advertise on Ukhozi radio station
- Put up posters in our community
- Use cellphone advertising
- Show us successful university graduates
- Advertise on television
- Advertise in newspapers

Section D

This section was important in determining the positioning of the Foundation Programme and UKZN in comparison with the competing programmes.

1. What are your opinions about UKZN?

Question 1 related to Objective 2. It helps understand the target markets' perception of UKZN and the position it occupies in their minds.

2. The University of Natal and the University of Durban Westville merged (joined) to form the University of KwaZulu-Natal (UKZN) in 2004. Did you know about this merger?

Questions 2 and 3 of this section were asked to find out if the merger had a negative effect on the target market. If this was the case then this could be a contributing factor for the Foundation programme not meeting its enrolment targets.

3a. Did this merger affect your decision about which university to attend?

3b. If so, how?

4. Describe UKZN in 3 words. This question relates to Objective 2 and helps understand the target markets' perceptions of UKZN.

5. What in your opinion is UKZN best known for? This question relates to Objective 2 and helps understand the target markets' perceptions of UKZN.

7.2.1.1 Pilot Questionnaire

Welman *et al.* (2005, p.148) advise to 'test out' a newly developed measurement instrument before administering it to the actual sample. This gives the researcher the opportunity to detect possible flaws in the measurement procedures such as ambiguous instructions, inadequate time limits etc. and identify unclear or ambiguously formulated items (Welman *et al.*, 2005, p.148). According to Delpont (2005, p. 169) some participants could experience difficulties in understanding certain questions and may be too embarrassed to ask for clarification within a group. Therefore the written questionnaire was first piloted at a local school that falls within the target market but which not included in the sample for the focus group interviews or questionnaires to help eliminate any

ambiguity in the questions especially as the majority of respondents have English as their second language. The researcher checked with respondents if any questions need further clarification. This school was chosen using convenience sampling.

The research assistant accompanied the researcher when the pilot questionnaire was administered. This formed part of the training for him as the researcher was able to demonstrate how the questionnaires should be administered.

Permission was sought and granted prior to the questionnaires being completed. The researcher was given a classroom in which to administer the questionnaire. Only the participating students, the researcher and the research assistant were present while the questionnaires were administered. A total of 14 students participated in the pilot questionnaire. They also met the researcher's criteria of being Grade 12 learners who were doing Mathematics and Science. Following the pilot questionnaire minor changes were made to the questionnaire to make it more understandable and readable in terms of the layout for the respondents. For example each new question was shaded to make it more readable as there were many questions and the words please tick with a symbol was added where applicable.

7.2.2 Reminder about the Sample Design

As mentioned previously the sample design for this stage of the research comprised the use of a proportional stratified random sampling technique where 30 schools were selected from the DoE's list of 1662 disadvantaged schools in KwaZulu-Natal, i.e. those with deciles 1 to 8. This technique was used to ensure proportional representation of each decile. A table of random numbers in Lind *et al.* (2005, p.721) was used to select the actual schools within each strata (decile). The schools for Stage 2 was selected before the schools selected for the focus groups and pilot questionnaire. None of the schools were duplicated in any of these stages. The student sample was limited to grade 12 learners doing Mathematics and Science at the selected schools. The actual number of learners who participated in Stage 2 was 520 learners.

7.2.3 Data Collection

A research assistant was employed to administer the questionnaire to the chosen schools. The assistant was given training on how to administer the questionnaire so that the data collection method was not compromised in any way and ethical considerations were adhered to. The assistant also accompanied the researcher when the pilot testing was done as part of the training. He was

provided with copies of the questionnaire and writing materials for each school. Only respondents who together with their parents had completed the informed consent forms were allowed to participate in the research. The assistant was allowed to use a classroom in each school for this research and only the assistant and the respondents were present in the room. Once the questionnaires were completed they were kept in separate bundles so that each school response was kept together for the purpose of the data analysis. Arrangements were made with the school in advance for a suitable time to administer the questionnaires.

7.2.4 Data Analysis

First the questionnaires were coded. Each school's code began with a different alphabet so that the responses per school could be kept separate. The questionnaires were then captured into an Excel spreadsheet. The basic counts, percentages and graphical representations were done using Excel. Data was imported into SPSS for further analysis and testing. The descriptive statistics are displayed using graphs and tables.

The researcher wanted to check if certain demographic factors influenced how the respondents answered Question B2, i.e. were there any patterns? This question included the important factors in the selection of a university. This analysis would be useful in informing marketing decisions. For example, if the males responded differently to the females on a particular item and the Programme wanted to increase the number of females having this further analysis would be helpful, i.e. females for example perceive security as to be most important attribute in their decision of which university to attend. The data was first tested to see if there was a normal distribution of the data which was necessary for determining the appropriate test to use. The Shapiro-Wilk test was used to test the data. "The ShapiroWilk test... compares the scores in the sample to a normally distributed set of scores with the same mean and standard deviation. If the test is non-significant ($p > .05$) it tells us that the distribution of the sample is not significantly different from a normal distribution (i.e. it is probably normal). If however, the test is significant ($p < .05$) then the distribution in question is significantly different from a normal distribution (i.e. it is non-normal)" (Field, 2009, p.144).

The results of the Shapiro-Wilk Test for normality based on Factors from Question B2 and gender (Table I 1 in Appendix I) showed that the data was non-normal (p value is < 0.05). Therefore a non-parametric test was required to test for significant differences among groups within each factor from Question B2.

The results of the Shapiro-Wilk Test for normality based on Factors from Question B2 and Living Arrangements (Table I 2 in Appendix I) showed that the data was non-normal (p value is < 0.05). Therefore a non-parametric test was required to test for significant differences among groups within each factor from Question B2.

The results of the Shapiro-Wilk Test for normality based on Factors from Question B2 and breadwinners (Table I 3 in Appendix I) showed that the data was non-normal (p value is < 0.05). Therefore a non-parametric test was required to test for significant differences among groups within each factor from Question B2.

Similarly the researcher wanted to examine the impact of the biographic factors: gender, living arrangements and breadwinners on Question B5 which identified who influenced the respondents decision of which university to attend. Patterns found would be useful in influencing the marketing strategy of the CSA in attracting more students from its target market. First the Shapiro-Wilk test was done. These results as can be seen below showed that the data was non-normal therefore a non-parametric test would be required for testing if there was any difference among these factors.

The results of the Shapiro-Wilk Test for normality based on Factors from Question B5 and gender (Table I 4 in Appendix I) showed that the data was non-normal (p value is < 0.05). Therefore a non-parametric test was required to test for significant differences among groups within each factor from Question B5.

The results of the Shapiro-Wilk Test for normality based on Factors from Question B5 and living arrangements (Table I 5 in Appendix I) showed that the data was non-normal (p value is < 0.05). Therefore a non-parametric test was required to test for significant differences among groups within each factor from Question B5.

The results of the Shapiro-Wilk Test for normality based on Factors from Question B5 and breadwinners (Table I 6 in Appendix I) showed that the data was non-normal (p value is < 0.05). Therefore a non-parametric test was required to test for significant differences among groups within each factor from Question B5

Once this was done the Kruskal-Wallis test was used to test if there were any significant differences in the responses (Leech, Barret and Morgan, 2011, p.281). The Kruskal-Wallis is a non-

parametric test, in other words it is used to test for differences among groups (more than two) when the data under consideration is non-normal (Field, 2009, p.559). These results are included in the Findings Chapter.

In the cases where there were comparison of two groups testing for significant differences the Mann-Whitney test was used. The Mann-Whitney test is a non-parametric test used to test for differences among two independent groups (Field, 2009, p.540).

7.2.5 Reliability of the Questionnaire

In this section, reliability statistics for Stage 2, i.e. the questionnaire used in this study are reported on. There are various approaches to showing that a data collection instrument is reliable. According to Leech *et al.* (2011, p.52) one approach is test-retest where the same instrument is administered at two different points in time and a correlation coefficient is calculated so as to represent reliability of the instrument; a second approach is equivalent forms where two instruments are constructed which are similar to each other, each instrument is administered once with a time delay between each administration of the instruments and a correlation coefficient is calculated so as to represent reliability of the instrument; and thirdly, the use of internal consistency reliability statistics for questionnaire items which can be grouped together to form an underlying variable or construct.

The first two approaches described above were not used in this study due to time constraints surrounding the availability of respondents. The respondents were Grade 12 learners involved in various school activities related to their final exam preparation. This made it difficult for the researcher, both logistically and ethically, to gain access to the respondents. Thus the researcher made use of reliability statistics to explore the reliability of the data collection instrument, namely a questionnaire, used in this study. The reliability statistics used in this study are Cronbach's alpha, item to total correlation coefficients and the Guttman split-half reliability coefficient. The use of the three statistical methods also helped ensure triangulation. These statistics are reported on below.

The Cronbach's alpha coefficient is used to measure the internal reliability of an instrument and is based on the inter item correlations (Pieterse and Maree, 2007, 216). Pieterse and Maree (2007, p.216) contend that "if the items are strongly correlated with each other, their internal consistency is high and the alpha coefficient will be close to one. If, on the other hand, the items are poorly formulated and do not correlate strongly, the alpha coefficient will be close to zero" (Pieterse and

Maree, 2007, 216). A value of 0.7 or higher can be considered reliable (Nunnally, 1978 cited in Peterson, 1994, p.381).

Since the questionnaire measured a variety of underlying variables and binary questions (yes or no type answers), Cronbach's Alpha for each underlying variable was calculated. Given that the questionnaire measured a variety of underlying variables, an overall Cronbach's Alpha based on all items in the questionnaire would have been an incorrect interpretation of Cronbach's Alpha because Cronbach's Alpha is a measure of uni-dimensionality of the data. Thus a Cronbach's Alpha was used to test the reliability of questions that represented a common underlying variable. For example the items making up Question B2 measured the underlying variable, the needs of the student.

The Guttman split-half test was also used to test for reliability. The Guttman split-half test splits the data in half and tests each half of the data for reliability (Welman, *et al.* 2005). "...It obtains a score from each half of the scale. The correlation between the two scores, corrected to take account of the fact the correlations are based on only half of the items, is used as a measure of reliability" (Field, 2009, p.794).

For the establishment of reliability the Factor analysis tests were used to identify underlying variables. "Factor analysis is a method of grouping together variables which have something in common. It is a process which enables the researcher to take a set of variables and reduce them to a smaller number of underlying factors which account for as many variables as possible. It detects structures and commonalities in the relationships between variables. Thus it enables researchers to identify where different variables are in fact addressing the same underlying concept" (Cohen *et al.*, 2007, p.560).

Reliability testing was done for all the Likert scale type questions. Further, reliability statistics were not computed for Section A (the biographical information questions of participants), questions with a choice of two answers (for example the Yes/No questions in B1) and open-ended questions (for example question 3b in section D) as these questions were not measuring one underlying variable due to the nature of the questions.

Reliability statistics for questions on questionnaire

Question B2

The Cronbach's alpha for the questions making up Question B2 is 0.771 (Table I 7 in Appendix I) which is regarded as good reliability (Field, 2009, pp.675-679).

From Table I 8 in Appendix I, except for the item 'Far from home', the corrected item to total correlations are all above 0.3 which indicates that the items are reliable (Field, 2009, p. 678). For the item 'Far from home' with a corrected item to total correlation of 0.279, removing the item from the questionnaire would increase the Cronbach's alpha from 0.771 to 0.776 which the researcher considered to be a negligible increase. Thus the item was retained on the questionnaire analysis in view of the acceptable level of reliability reflected by the Cronbach's alpha of 0.771.

A further measure of reliability for the items making up Question B2 was calculated, namely the Guttman split-half coefficient. From Table I 9 in Appendix I, the Guttman split-half coefficient is 0.758 which indicates good reliability (Field, 2009, p.674).

Thus, taking the three measures of reliability used above as criteria (Cronbach's alpha, the corrected item to total correlations and the Guttman split-half coefficient), the items constituting Question B2 are reliable.

Question B3

The Cronbach's alpha for the questions making up Question B3 is 0.815 (Table I 10 in Appendix I) which is regarded as good reliability (Field, 2009, pp.675-679).

From the Table I 11 in Appendix I, the Guttman split-half coefficient is 0.732 which indicates good reliability (Field, 2009, p.674).

From Table I 12 in Appendix I the corrected item to total correlations are all above 0.3 which indicates that the items are reliable (Field, 2009, p. 678).

Similarly taking the three measures of reliability used above as criteria (Cronbach's alpha, the corrected item to total correlations and the Guttman split half coefficient), the items constituting Question B3 are reliable.

Question B4

The Cronbach's alpha for the questions making up Question B4 is 0.451 (Table I 13 in Appendix I) which is lower than 0.7 and not reliable.

From the Table I 14 in Appendix I, the Guttman split-half coefficient is 0.216 which is lower than 0.7 and is not reliable.

Two out of the three items that make up Question B4 are below 0.3 which indicates that the two items are not reliable; the item 'Working in my family business' is the only reliable item of the three items. Removal of item 'Other' increases the Cronbach's alpha to 0.572, however, this is still below the acceptable level of 0.7. Thus, when considered in conjunction with the other two reliability measures (mentioned in the previous two paragraphs), the researcher concluded that the items making up Question B4 are not reliable. This was considered to be a limitation of the instrument used.

Question B5

The Cronbach's alpha for the questions making up Question B5 is 0.832 (Table I 16 in Appendix I) which is regarded as good reliability (Field, 2009, pp.675-679).

From Table I 17 in Appendix I, the Guttman split half coefficient is 0.529 which is lower than 0.7. In view of the high Cronbach's Alpha of 0.832 an inspection of the corrected item total statistics reveal that all are above 0.3 with the exception of 'self-motivated'. It was decided not to drop the item as the gain in the Cronbach's Alpha was negligible.

From Table I 18 in Appendix I, except for the item 'Self-motivated', the corrected item to total correlations are all above 0.3 which indicates that the items are reliable (Field, 2009, p. 678). For the item 'Self-motivated' with a corrected item to total correlation of 0.194, removing the item from the questionnaire would increase the Cronbach's alpha from 0.832 to 0.853 which the researcher considered to be a negligible increase. Thus the item was retained on the questionnaire analysis in view of the acceptable level of reliability reflected by the Cronbach's alpha of 0.832.

Overall Question B5 is reliable based on the Cronbach's Alpha and the corrected item total correlation.

Question C3

The Cronbach's alpha for the questions making up Question C3 is 0.846 (Table I 19 in Appendix I) which is regarded as good reliability (Field, 2009, pp.675-679).

From Table I 20 in Appendix I, the Guttman split half coefficient is 0.787 which indicates good reliability (Field, 2009, p.674).

From Table I 21 in Appendix I, except for the item 'C3A7' which was *the university is near my home*, the corrected item to total correlations is all above 0.3 which indicates that the items are reliable (Field, 2009, p. 678). For the item 'C3A7' with a corrected item to total correlation of 0.236, removing the item from the questionnaire analysis would increase the Cronbach's alpha from 0.846 to 0.854 which the researcher considered to be a negligible increase. Thus the item was retained in the questionnaire analysis in view of the acceptable level of reliability reflected by the Cronbach's alpha of 0.846.

Similarly taking the three measures of reliability used above as criteria (Cronbach's alpha, the corrected item to total correlations and the Guttman split half coefficient), the items constituting Question C3 are reliable.

Question C5b

Based on the low Cronbach's Alpha (Table I 22 in Appendix I), the low Guttman Split-Half Coefficient (Table I 24 in Appendix I) and the low corrected total correlation (Table I 23 in Appendix I) the statistics suggest that there might not be one underlying variable being measured. The researcher investigated this further by applying factor analysis. Six of the seven items that made up Question C5b on the questionnaire were analysed using factor analysis; the purpose being to identify items which could be clustered together to represent an underlying variable and to statistically determine the reliability of the clustered items. Item seven which was excluded from the factor analysis as it was regarded as an open ended question compared to the other items making up Question C5b. The items included were: it is closer to home, it is further away from my home, it is closer to the beach, the degree I want is offered there, I can save time and money as I will be living on campus and it will be cheaper as I can live at home and travel daily.

From the above table, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy statistic of 0.602 (Table I 25 in Appendix I) is adequate (Leech *et al.*, 2011, p.76; Field, 2009, p.647). Bartlett's Test of Sphericity has a significance value less than 0.05 which means that factor analysis is an appropriate statistical procedure for an analysis of the data under consideration (Leech *et al.*, 2011, p.72).

Principal component analysis with varimax rotation was used to extract two components or underlying factors; two components or factors were deemed appropriate using the criteria of eigenvalues greater than 1 (Leech *et al.*, 2011, p.72). From Table I 26 in Appendix I, after varimax rotation, component one accounted for approximately 31% of the variance and the second component accounted for approximately 21% of the variance; cumulatively the two components extracted accounted for approximately 53% of the variance within the data.

Table I 27 in Appendix I shows the items and the corresponding loadings onto each of the two components extracted. In order to make interpretation of the components easier, item loadings which were smaller than 0.4 in absolute value were suppressed from the table (Field, 2009, p.655).

From Table I 27 in Appendix I, Component 1 consists of the items 'Living on campus', 'Closer to the beach', 'Close to home', 'Cheaper, travel daily' and Degree is offered'. Component 2 consists of the items 'Further from home'. The item 'Close to home' loaded onto both components but since the item loaded higher on Component 1 than on Component 2, the researcher chose to include the item as part of Component 1.

Thus each of the components can be thought of as an underlying variable and the items belonging to each variable form a coherent cluster. By revealing two components or factors, the factor analysis confirmed the researcher's suspicion that the six items had more than one underlying dimension.

However, from table I 28 in Appendix I, the low value of Cronbach's Alpha (0.610) for component one suggests that the components do not form a reliable scale. This is a limitation of the study.

Question C7

The Cronbach's alpha for the questions making up Question C7 is 0.784 (Table I 29 in Appendix I) which is regarded as good reliability (Field, 2009, pp.675-679).

From Table I 30 in Appendix I the corrected item to total correlations is all above 0.3 which indicates that the items are reliable (Field, 2009, p. 678).

From Table I 31 in Appendix I, the Guttman split-half coefficient is 0.685 which indicates good reliability (Field, 2009, p.674).

Similarly taking the three measures of reliability used above as criteria (Cronbach's alpha, the corrected item to total correlations and the Guttman split half coefficient), the items constituting Question C7 are reliable.

Question D1

The Cronbach's alpha for the questions making up Question D1 is 0.661 (Table I 32 in Appendix I).

Based on the low Cronbach's Alpha (Table I 32 in Appendix I), the low Guttman Split-Half Coefficient (Table I 33 in Appendix I) and the low corrected total correlation (Table I 34 in Appendix I) the statistics suggest that there might not be one underlying variable being measured. The researcher investigated this further by applying factor analysis.

Ten of the eleven items that made up Question 1 of section D1 on the questionnaire were analysed using factor analysis; the purpose being to identify items which could be clustered together to represent an underlying variable and thereafter statistically determine the reliability of the clustered items. Item 11 was excluded from the factor analysis as it was regarded as an open ended question compared to the other items of section D1. The items included were UKZN is a great university, UKZN has good security, UKZN is a safe place, UKZN has lovely campuses, UKZN provides quality education, the students from UKZN are friendly, UKZN helps the community, UKZN does not provide sufficient career information, UKZN graduates are successful and UKZN is slow in responding to its applicants.

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy statistic of 0.848 (Table I 35 in Appendix I) is good and indicates that the sample size and the number of items are acceptable for a factor analysis (Leech *et al.*, 2011, p.76; Field, 2009, p.647). Bartlett's Test of Sphericity has a significance value less than 0.05 which means that factor analysis is an appropriate statistical procedure for an analysis of the data under consideration (Leech *et al.*, 2011, p.72).

Principal component analysis with varimax rotation was used to extract two components or underlying factors; two components or factors were deemed appropriate using the criteria of eigenvalues greater than 1 (Leech *et al.*, 2011, p.72). From Table I 36 in Appendix I, after varimax rotation, Component 1 accounted for approximately 34% of the variance and Component 2 accounted for approximately 18% of the variance; cumulatively the two components extracted accounted for approximately 53% of the variance within the data.

Table I 37 in Appendix I shows the items and the corresponding loadings onto each of the two components extracted. In order to make interpretation of the components easier, item loadings which were smaller than 0.4 in absolute value were suppressed from the table (Field, 2009, p.655).

From Table I 37 in Appendix I, Component 1 consists of the items 'Quality', 'Great', 'Good security', 'Successful graduates', 'Safe' and 'Lovely campuses'; Component 2 consists of the items 'Slow response', 'Career info', 'Community' and 'Friendly students'. Thus each of the components can be thought of as an underlying variable and the items belonging to each variable form a coherent cluster. By revealing two components or factors, the factor analysis confirmed the researcher's speculation that the ten items had more than one underlying dimension.

However, from Table I 38 in Appendix I, the low value of Cronbach's Alpha for Component 2 suggests that the items making up Component 2 do not form a reliable scale. This is a limitation of the study.

In summary as can be seen in Table I 39 in Appendix I and in the discussion above the majority of the Cronbach Alpha coefficients, apart from three, are above 0.7. This leads the researcher to conclude that the instrument is reliable.

7.3 Validity

Henning, Rensburg and Smith. (2004, p. 148) state that "to validate is to *check* (for bias, for neglect, for lack of precision and so forth), to *question* (all procedures and decisions – critically), to *theorise* (looking for and addressing theoretical questions that arise throughout the process – not just towards the end) and to *discuss and share* research actions with peers as critical in-process reviewers". Pietersen and Maree (2007, p. 216) simply explain that "the validity of an instrument refers to the extent to which it measures what it is supposed to measure". Alternatively, validity can be

conceptualised to focus not just on the instrument and the items but also on the population of interest within a research study (Cohen *et al.*, 2007, pp.133-143).

This study aimed to satisfy two types of validity: face validity and content validity. Face validity examines whether or not an instrument makes sense within the research problem under investigation; on the face of it, will the instrument allow the researcher to gather data that will answer the research problem (Pietersen and Maree, 2007, p.217). The questionnaire was seen and approved by the researcher's supervisor who in her capacity as an experienced researcher established the face validity of the instrument.

Content validity examines whether or not an instrument contains a comprehensive range of items that are representative of and applicable to the research problem under investigation (Cohen *et al.*, 2007, p.137). The range of items must be comprehensive in the sense of covering a broad category of aspects within a problem as opposed to having a large number of items on a questionnaire. The questionnaire included a range of items that were derived from literature, interviewing the Head of the CSA, a representative of the Department of Education and the focus group of Stage 1 of this research and the instrument was thus deemed valid.

7.4 Ethical Requirements

As explained in Chapter 5 approvals for this study were granted from four levels: the management of the CSA, Department of Education and principals of the sample schools to conduct this research as well as the Research Office at UKZN.

As the participants were mostly under 18 years old informed consent was obtained from them and their parents or guardians.

7.5 Conclusion

This chapter addressed the research methodology, particularly for Stage 2 of this research which was the quantitative research. A triangulation approach was used for this study and this chapter dealt specifically with rationale for stage 2 of the research. The design of the written questionnaire, pilot questionnaire, data collection and analysis, issues of reliability and validity were discussed. The next chapter presents these findings with a brief reporting.

Chapter 8: Findings for Stage Two

8.1 Introduction

This chapter reports on the findings of Stage 2, which is the quantitative part of this study, i.e. the written questionnaire. The results are structured in order of the questions. Only a brief reporting is given here. A detailed discussion of these findings follows in Chapter 9 in relation to each objective.

8.2 Results of Section A

Biographical Profile of the Sample

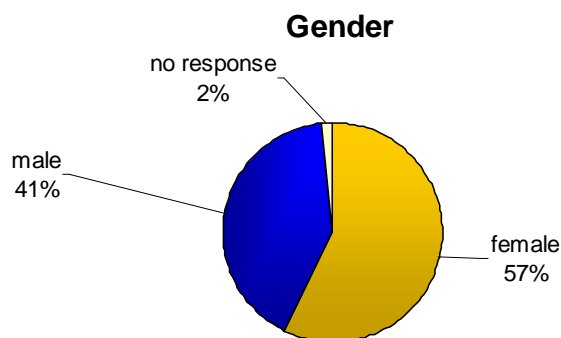
There were a total of 520 respondents who completed the questionnaires. For stage 2 there were 23 high schools that participated in the research.

The researcher wanted to establish whether the school the respondent was from made any difference in the way they rated UKZN. Table I 63 in Appendix I shows the means per school for the rating of UKZN. As can be seen in the table the responses are very similar except for school 8 whose scores are slightly lower than the others. Apart from this there was no significant difference between the schools.

8.2.1. Gender

The gender of the respondents was 298 female, 213 male and 9 gave no response.

Graph 8.1: Gender

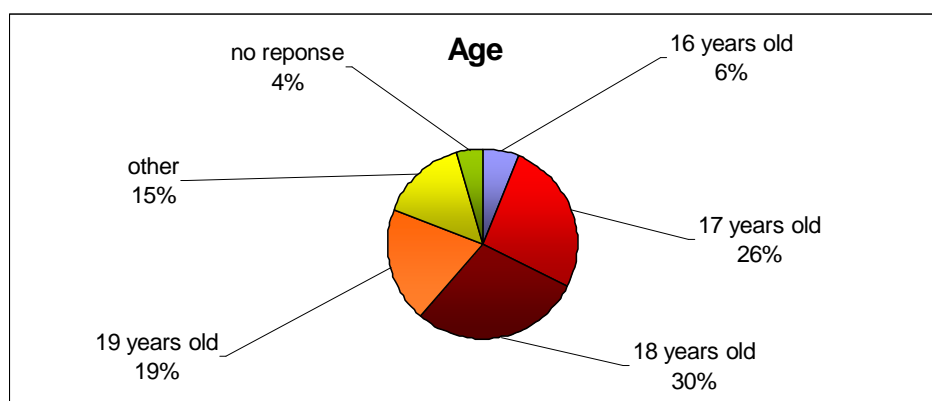


8.2.2. Age

The age distribution of the respondents were:

16 years old – 32	19 years old - 101
17 years old – 137	Other: from 20 to 27 years - 77
18 years old – 150	no response - 23

Graph 8.2: Age Distribution



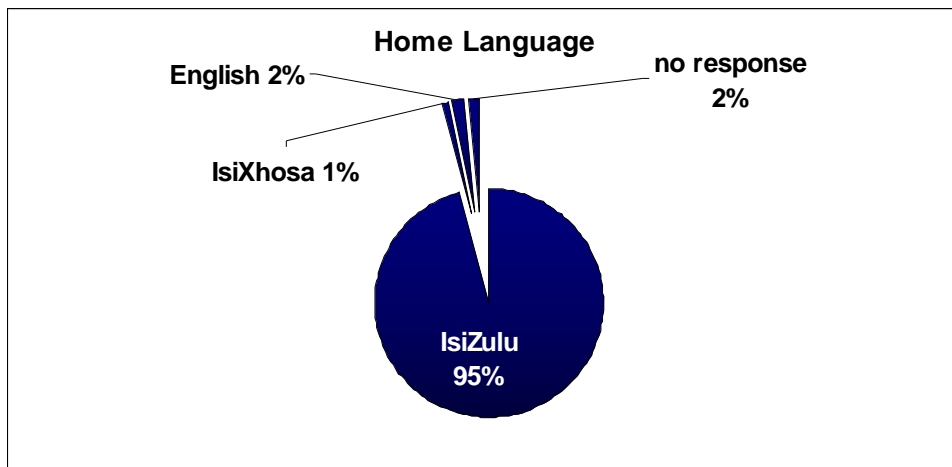
The majority of the respondents, i.e. 75% were between 17 and 19 years old.

8.2.3. Home Language

The home language of the respondents were:

IsiZulu - 498
IsiXhosa - 5
English - 8
Other – none
9 no response

Graph 8.3: Home Language



Most of the respondents, i.e. 95% spoke IsiZulu as their home language.

8.2.4. Living Arrangements

Table 8.1: Living Arrangements

	Number of responses	Percentage
I live with one of my parents	186	36%
I live with both my parents	166	32%
I live with my relatives	31	6%
I live with my grandparent(s)	61	12%
I live with my guardian	59	11%
Other	8 (1 lives alone and the others did not specify)	2%
No response	9	2%

As can be seen in the table above the greatest number of the respondents, i.e. 36% lived with at least one parent. This was closely followed by a large number of respondents, i.e. 32% who lived with both their parents.

8.2.5. Bread Winners

Table 8.2: Breadwinners

	Number of responses	Percentage
Both my parents are working	61	12%
Only my father is working	126	24%
My guardian is working	46	9%
Only my mother is working	104	10%
My grandparent(s) whom I live with works	14	3%
Neither my parents nor guardian works	139	27%
No response	30	6%

In the case of who the breadwinners in the family or home are, most of the respondents, i.e. 27% came from homes where neither their parents nor their guardian was working. This was followed by a large proportion of the respondents, i.e. 44% where only one of the parents was working. This would have financial implications for the family and for the respondent in particular.

8.3 Results of Section B

1. *Would you like to attend university after completing school?*

Table 8.3: Responses to Question B1

	Frequency	Percent
No.	13	3%
Yes	459	88%
No response	48	9%

The majority of the respondents, i.e. 88% indicated that they would like to attend university after completing school.

2. *In choosing a university, please indicate the level of importance of each factor influencing which university you attend.*

Based on the findings, the following table summarises the relative importance of each item.

Table 8.4: Level of Importance of Determining Dimensions

Question	Factor (descending order of importance)	Extent of importance (based on % of sample giving a rating of 4 or higher on Likert scale)	Mean	Standard Deviation
13	Infrastructure (Academic facilities)	92%	4.75	0.599
2	Finance	92%	4.72	0.609
4	Vocation	92%	4.71	0.565
5	Employment	88%	4.66	0.677
11	Quality education	85%	4.61	0.731
10	Security	88%	4.54	0.801
14	Graduates	87%	4.47	0.818
1	Communication	84%	4.4	0.924
6	Feedback from students	80%	4.34	0.824
3	Reputation	72%	4.29	0.971
15	Independent	78%	4.24	1.011
12	Sport	68%	3.92	1.072
9	Quality of student life	56%	3.57	1.321
7	Distance (near)	43%	3.17	1.443
8	Distance (far)	38%	3.11	1.35

1. Communication from the University was important to some degree for majority of the respondents i.e. 84%.
2. 92% of the respondents indicated that financial assistance (loans or bursaries or low cost of fees) was important to them to some degree.
3. Reputation of the institution was important to some degree for 72% of the respondents.
4. 92% of the respondents indicated that the university offering the career and qualification they want to study is important to them to some degree.
5. Employment after studying at that university was important to some degree for 88% of the respondents.

6. 80% of the respondents agreed that positive feedback from students attending that university was important for them to some degree.
7. Only 43% of the respondents indicated that the university near their home was important. In contrast, 34% felt this item was not important.
8. Only 38% of the respondents indicated that the university being far from their home was important.
9. Quality of life while studying (university atmosphere, entertainment or being with friends studying at the same university) was important for 56% of the respondents to some degree.
10. Security was important to some degree for 88% of the respondents.
11. Quality education (includes quality of teaching staff) was important to some degree for 85% of the respondents.
12. 68% of the respondents indicated that sports was important to them to some degree.
13. The infrastructure of the university (facilities e.g. library, laboratories, computer labs, accommodation etc.) was important to some degree for 92% of the respondents.
14. 87% of the respondents agreed that seeing successful graduates of the university was important to them to some degree.
15. The university allowing them to be independent was important to some degree for 78% of the respondents.

Based on the level of importance in the table above, the majority of the sample viewed all the factors, except distance from home, as important in influencing their choice of university. However infrastructure and finance were the two most important items.

The researcher wanted to check if the demographic variables influenced how the respondents rated the importance of the factors, i.e. were there any patterns, were there any differences found in responses based on gender, living arrangement or breadwinners? For example, based on the demographic category gender, was communication rated the same by males and females. In other words, was each item rated similarly among respondents within a demographic category. This was tested using Mann-Whitney and Kruskal-Wallis test. Prior to this the data was tested for normality using the Shapiro Wilk test and these results are included in the Research Methodology Chapter. The tables I 41, I 42 and I 43 (Appendix I) shows that there were no significant differences based on gender for the importance of the factors. Table I 44 (Appendix I) shows that there were no significant difference based on living arrangements for the importance of the factors. Table I 45

(Appendix I) show that there was no significant difference based on bread-winners for the importance of the factors.

3. Please indicate the level of importance of these needs when considering an access programme and university

Table 8.5: Importance of Needs

		1. Not at all Important		2. Not very important		3. Neutral		4. Important		5. Very Important		No response	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
1	I need the university to make me feel welcome	7	1	5	1	18	3	147	28	324	62	19	4
2	I need financial assistance from the university (i.e. loan or bursary)	1	0	5	1	15	3	91	18	390	75	18	3
3	I need the use of laboratories at the university	0	0	5	1	14	3	120	23	351	68	30	6
4	I need to be motivated in my studies	15	3	15	3	26	5	150	29	285	55	29	6
5	I need the university to help me get job experience	1	0	5	1	17	3	114	22	355	68	28	5
6	My safety and security needs to be taken care of	7	1	8	2	27	5	181	35	263	51	34	7
7	My health needs to be taken care of	15	3	24	5	47	9	189	36	211	41	34	7
8	I need a place to buy food	7	1	28	5	46	9	186	36	221	43	32	6
9	I need accommodation close to the university	2	0	15	3	30	6	142	27	285	55	46	9
10	I need career advice	1	0	5	1	27	5	164	32	290	56	33	6
11	I need counselling advice	6	1	27	5	57	11	208	40	191	37	31	6
12	I need mentors to guide me	9	2	26	5	42	8	178	34	234	45	31	6

Table 8.6: Needs ranked according to level of importance

		Important	Mean	Standard Deviation
2	I need financial assistance from the university (i.e. loan or bursary)	93%	4.72	0.588
3	I need the use of laboratories at the university	91%	4.67	0.584
5	I need the university to help me get job experience	90%	4.66	0.616
1	I need the university to make me feel welcome	91%	4.55	0.74
10	I need career advice	87%	4.51	0.669
9	I need accommodation close to the university	82%	4.46	0.785
6	My safety and security needs to be taken care of	85%	4.41	0.791
4	I need to be motivated in my studies	84%	4.37	0.944
12	I need mentors to guide me	79%	4.23	0.944
8	I need a place to buy food	78%	4.2	0.931
7	My health needs to be taken care of	77%	4.15	0.993
11	I need counselling advice	77%	4.13	0.908

Financial assistance from the university was the most important need for the respondents with a mean of 4.72. This was followed by the use of laboratories with a mean of 4.67, then the need for the university to help them get job experience with a mean of 4.66 and then by the need to make them feel welcome with a mean of 4.55.

4. *What else are you considering besides going to university?*

Table 8.7: Other Alternatives to Attending a University

		1. Strongly Disagree	2. Disagree	Total Disagree	3. Agree	4. Strongly Agree	Total Agree	No response		Mean	Std Dev
		Freq	Freq	%	Freq	Freq	%	Freq	%		
1	Finding a job	67	88	30	129	174	58	62	12	2.90	1.072
2	Working in my family business	138	163	58	96	33	25	90	17	2.06	0.922
3	Other	13	22	7	16	15	6			2.50	1.056

The majority of the respondents, i.e. 58%, are considering finding a job.

Of the respondents 25% are considering working in their family business.

Only a few responded who indicated 'other' specified their answers: Paramedic (1), teacher (1), starting my small business (1) and play any type of sport (1)

Thus for most of the respondents finding a job would be competing with their decision to attend university.

5. Who influences your decision about which university to attend?

Table 8.8: People influencing decision about attending university

	1. Strongly Disagree	2. Disagree	% Disagree	3. Agree	4. Strongly Agree	% Agree	No response		Mean	Std Dev
	Freq	Freq	%	Freq	Freq	%	Freq	%		
1. Parents	33	69	20%	143	228	71%	47	9	3.20	.933
2. Family (other than parents e.g. aunt)	43	101	28%	196	115	60%	65	13	2.84	.911
3. Teacher	35	84	23%	135	188	62%	78	15	3.08	.963
4. Friends	69	117	36%	147	106	49%	81	16	2.66	1.012
5. Teacher (s)	37	82	23%	151	149	58%	101	19	2.98	.952
6. No one, I am self - motivated	53	92	28%	99	213	60%	63	12	3.03	1.064
7. Community (e.g. neighbours)	87	129	42%	129	85	41%	90	17	2.49	1.026
8. University students	50	83	26%	174	129	58%	84	16	2.88	.965
9. Other	8	14	4%	13	22	7%			2.86	1.093

As can be seen in the above table the majority of respondents agreed that most of the individuals excluding the community, influence their decision about which university to attend.

Only a few specified their answer for 'other': Girlfriend (1), Friends (1), Mr Mchunu (1), Radio and television (1), Career advice (1) and Successful graduates (1)

Table 8.9: Influential people ranked according to level of agreement

		% Agree	Mean	Standard Deviation
1	Parents	71%	3.20	.933
3	Teacher	62%	2.84	.911
2	Family (other than parents e.g. aunt)	60%	3.08	.963
6	No one, I am self -motivated	60%	2.66	1.012
5	Teacher (s)	58%	2.98	.952
8	University students	58%	3.03	1.064
4	Friends	49%	2.49	1.026
7	Community (e.g. neighbours)	41%	2.88	.965
9	Other		2.86	1.093

Parents are the most influential for the respondents in their decision making about which university to attend with a mean of 3.20. This was followed by the teacher with a mean of 2.84. Based on the above table the researcher wanted to examine the impact, if any, of the demographic factors on the above data. In other words, do the demographic factors of gender, living arrangements and breadwinners reveal any patterns about how the respondents answered Question B5, the influential people in their decision of which university to attend. These patterns would be useful in informing the marketing strategy especially in terms of the marketing communication.

First the Shapiro-Wilk tests were done which showed that the data was non-normal. The testing for significant difference was done using the Mann-Whitney (where the grouping variable was gender) and Kruskal-Wallis tests (where the grouping variable was based on the demographic factor living arrangements and breadwinners). For Question B5 the results in Table I 47 in Appendix I showed that for the demographic factor gender, except for the question on parental influence (p -value less than 0.05), there was no significant difference in responses among males and females. With regard to gender and parental influence, females rated parental influence more highly than males since the mean rank for females (mean 246.66) was higher than the mean rank for males (mean 213.91) (see Table I 46 in Appendix I). However this does not need any special consideration for the marketing communication as parents was rated the highest and if the programmes need to target more females this can still be done by directing the communication to the parents.

For the biographic factor living arrangements the Kruskal-Wallis test revealed no significant difference (Table I 48 in Appendix I). For Question B5 the results in Table I 50 in Appendix I

showed that for the biographic factor breadwinners, except for the question on the influence of friends (p -value less than 0.05), there was no significant difference in responses among the grouping of respondents based on breadwinners. With regard to breadwinners, the 'guardian' had the greatest mean (mean=3.08) when compared to the other categories of breadwinners. This suggested that this group of respondents, on average, is influenced more by their friends when it comes to choice of university. So this means that in the marketing communication apart from it being directed to parents, friends should also be included as they influence respondents where the breadwinners are guardians.

6. *Would you consider attending another university besides the University of KwaZulu-Natal?*

Table 8.10: Considering Studying at Other Universities

	Frequency	Percent
No.	266	51
Yes	204	39
No response	10	50

The majority of respondents, i.e. 51% were not considering attending another university besides UKZN. The following table includes the universities specified by the 204 respondents who answered yes, i.e. they were considering attending another university besides UKZN.

Table 8.11: Other universities considered by respondents

	Number of responses	%
Durban University of Technology	57	11.0
University of Johannesburg	23	4.4
University of Cape Town	20	3.8
University of Pretoria	18	3.5
University of Zululand	15	2.9
Mangosuthu University of Technology	12	2.3
UNISA	12	2.3
Ongoye	9	1.7
Medunsa	7	1.3
University of Witswatersrand	6	1.2
Stellenbosch University	4	0.8
FET	2	0.4
Nelson Mandela Metropolitan University	2	0.4
Rhodes University	2	0.4
University of the Free State	2	0.4
Cedara College	1	0.2
University of Cape Peninsula	1	0.2
University of Tswane	1	0.2

Durban University of Technology was being considered by most of the respondents, followed by University of Johannesburg and then University of Cape Town. These therefore represent primary competitors for UKZN with regards to this target market.

7a. Are you considering doing a science or science-related degree?

Table 8.12: Considering a science degree

	Frequency	Percent
No.	428	82
Yes	36	7
No response	56	11

The majority of the respondents, i.e. 82% were considering doing a science-related degree. Other degrees being considered were Bachelor of Commerce (6 responses), Bachelor of Business Management (1 response), Nursing (2 responses), Paramedical (2 responses) and Social work (2 responses).

7b. *Would you consider doing an access programme that will allow you to continue with a science degree thereafter?*

Table 8.13: Considering an access programme

	Frequency	Percent
No.	412	79
Yes	18	3
No response	90	17

The majority of respondents, i.e. 79% would consider doing an access programme that will allow them to continue with a science degree. Some reasons given for not wanting to do an access programme included: I have three options (1 response), I want to be full time (1 response) and I can't wait, my career needs a science degree (1 response).

8.4 Results of Section C

1. *Have you heard about the Foundation Programme at the University of KwaZulu-Natal?*

Table 8.14: Awareness of UKZN's Foundation Programme

	Frequency	Percent
No.	140	27
Yes	343	66
No response	520	7

The majority of the respondents, i.e. 66% were not aware of the Foundation Programme at UKZN.

2. *Have you heard about any Access programmes in Science at other Universities?*

Table 8.15: Awareness of other access programmes

	Frequency	Percent
No.	358	69
Yes	93	18
No response	69	13

The majority, i.e. 69% of the respondents were not aware of any Access Programmes in Science at other Universities.

3. *Using the scale below please rate the Foundation Programme at UKZN and Foundation Programmes in Science at other universities on each of the following factors. Even though you may not have had experience with these universities it is your opinion, i.e. what you think that matters.*

The frequencies for the ratings for UKZN are presented here as well as the means for all the universities. Frequencies for the other universities are presented in Tables I 64 to I 70 in Appendix I. Also included here is the value curve for the rating of the universities. Tables I 55 to I 62 in Appendix I includes the means and standard deviation for the rating of each university as well as a comparison of the positive (Table I 71 in Appendix I) and negative (Table I 72 in Appendix I) responses for the rating of the universities.

Table 8.16: Results for Rating of UKZN

	A. University of KwaZulu-Natal	1. Very Poor		2. Poor		3. Average		4. Good		5. Excellent		6. I don't know		No response	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
1	Communication from the university (i.e. through written information such as posters or brochures or presentations by a university staff or other forms of advertising)	0	0	6	1	29	6	151	29	203	39	109	21	22	4
2	Financial Assistance (loans or bursaries or cost of fees)	1	0	3	1	34	7	142	27	216	42	99	19	25	5
3	Reputation of the institution	4	1	8	2	42	8	133	26	177	34	114	22	42	8
4	The career and qualifications offered	1	0	7	1	24	5	141	27	233	45	79	15	35	7
5	Studying at that university will lead me to employment	2	0	6	1	41	8	123	24	232	45	77	15	39	8
6	Positive feedback from university students attending that university	9	2	8	2	48	9	109	21	211	41	100	19	35	7
7	The university is near my home	32	6	20	4	56	11	138	27	179	34	59	11	36	7
8	The university is far away from my home	101	19	57	11	59	11	90	17	113	22	59	11	41	8
9	Quality of life while studying (university atmosphere, entertainment or being with friends studying at the same university)	6	1	18	3	47	9	135	26	151	29	125	24	38	7
10	Security	4	1	5	1	28	5	128	25	208	40	111	21	36	7
11	Quality education (includes quality of teaching staff)	1	0	2	0	22	4	127	24	228	44	89	17	51	10
12	Sports	3	1	6	1	38	7	136	26	166	32	134	26	37	7
13	Infrastructure of the university (facilities e.g. library, laboratories, computer labs, accommodation etc.)	3	1	6	1	18	3	124	24	226	43	101	19	42	8
14	Seeing successful graduates of the university	5	1	4	1	26	5	124	24	232	45	93	18	36	7
15	The university will allow me to be independent	4	1	6	1	29	6	132	25	198	38	113	22	38	7

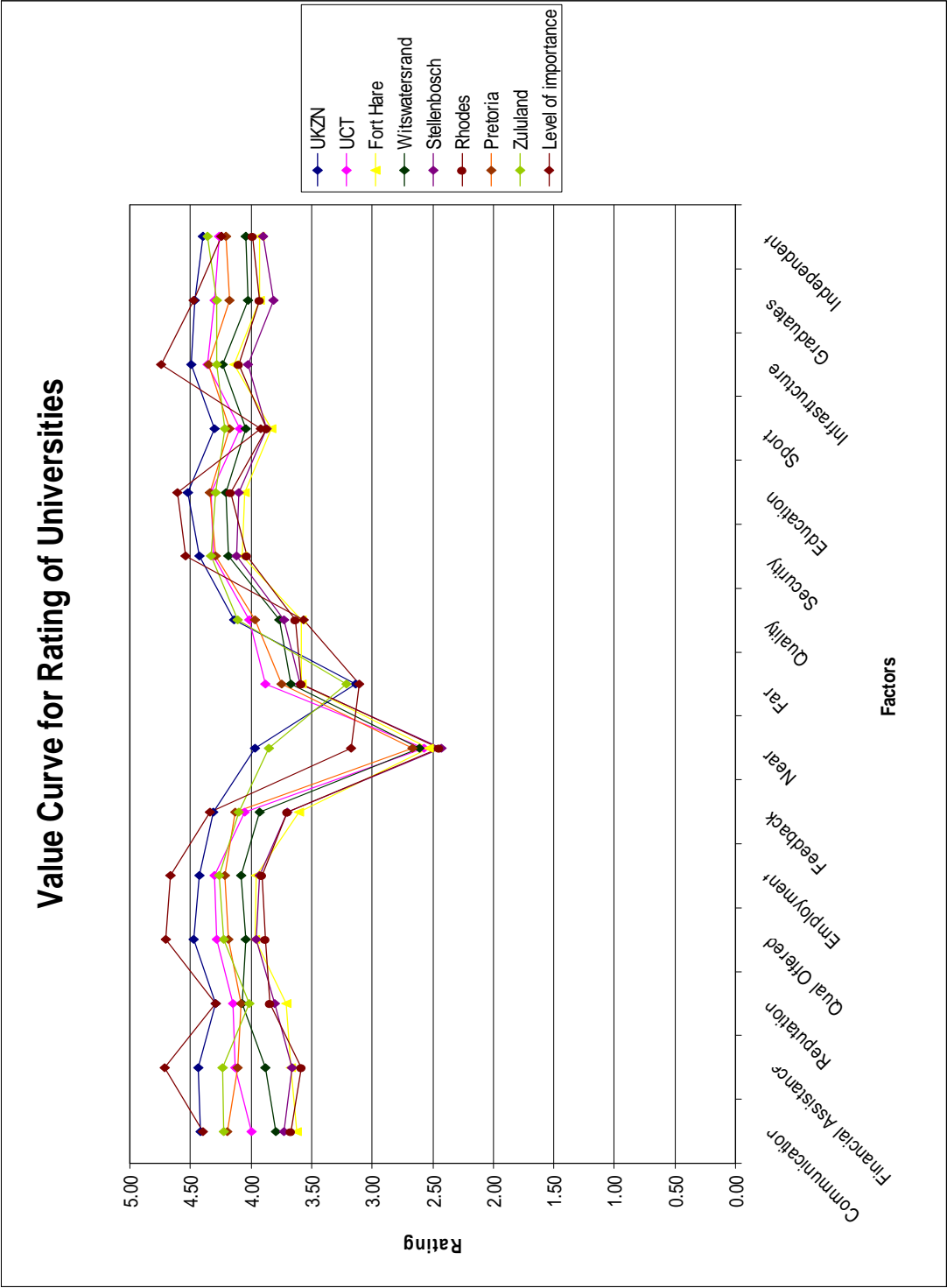
Table 8.17: Comparison of Means for Universities

		A UKZN	B UCT	C Fort Hare	D Wits	E Stell	F Rhod	G Pret	H Zulu
1	Communication from the university (i.e. through written information such as posters or brochures or presentations by a university staff or other forms of advertising)	4.42	3.99	3.62	3.80	3.73	3.67	4.20	4.23
2	Financial Assistance (loans or bursaries or cost of fees)	4.44	4.13	3.67	3.88	3.66	3.58	4.11	4.24
3	Reputation of the institution	4.29	4.14	3.71	4.07	3.81	3.84	4.08	4.02
4	The career and qualifications offered	4.47	4.28	3.97	4.04	3.95	3.88	4.19	4.23
5	Studying at that university will lead me to employment	4.43	4.30	3.96	4.09	3.93	3.91	4.21	4.26
6	Positive feedback from university students attending that university	4.31	4.05	3.60	3.93	3.70	3.70	4.13	4.10
7	The university is near my home	3.97	2.57	2.53	2.61	2.42	2.44	2.66	3.86
8	The university is far away from my home	3.14	3.88	3.58	3.67	3.59	3.58	3.75	3.21
9	Quality of life while studying (university atmosphere, entertainment or being with friends studying at the same university)	4.14	4.01	3.59	3.77	3.72	3.64	3.97	4.11
10	Security	4.42	4.32	4.07	4.19	4.12	4.03	4.29	4.33
11	Quality education (includes quality of teaching staff)	4.52	4.33	4.05	4.20	4.11	4.16	4.34	4.29
12	Sports	4.31	4.09	3.83	4.05	3.87	3.88	4.18	4.22
13	Infrastructure of the university (facilities e.g. library, laboratories, computer labs, accommodation etc.)	4.50	4.36	4.14	4.24	4.02	4.10	4.35	4.29
14	Seeing successful graduates of the university	4.47	4.30	3.93	4.02	3.82	3.93	4.18	4.29
15	The university will allow me to be independent	4.39	4.27	3.93	4.05	3.90	3.99	4.21	4.36

The 'I don't know' category which was scored 6 on the Likert scale for Question 3 in Section C was recoded from 6 to 0 and left out of the mean calculation. This was done because a score of 6 would be incorrect for this answer as it would gain a higher score and place them on the positive extreme

of the Likert scale. When respondents chose the ‘I don’t know’ category for this question they were not rating the universities and thus it is incorrect to use this score in the means. It does however provide valuable information, i.e. a large number of the respondents had very little information about the other universities. This can be seen in the frequencies and percentages of the “I don’t know’ category which are presented in Table 8.16 seen above and Tables 64 to 70 in Appendix I. Thus the ‘I don’t know category was treated similar to the no responses and left out of the mean calculation.

Graph 8.4: Value Curve for Rating of Universities



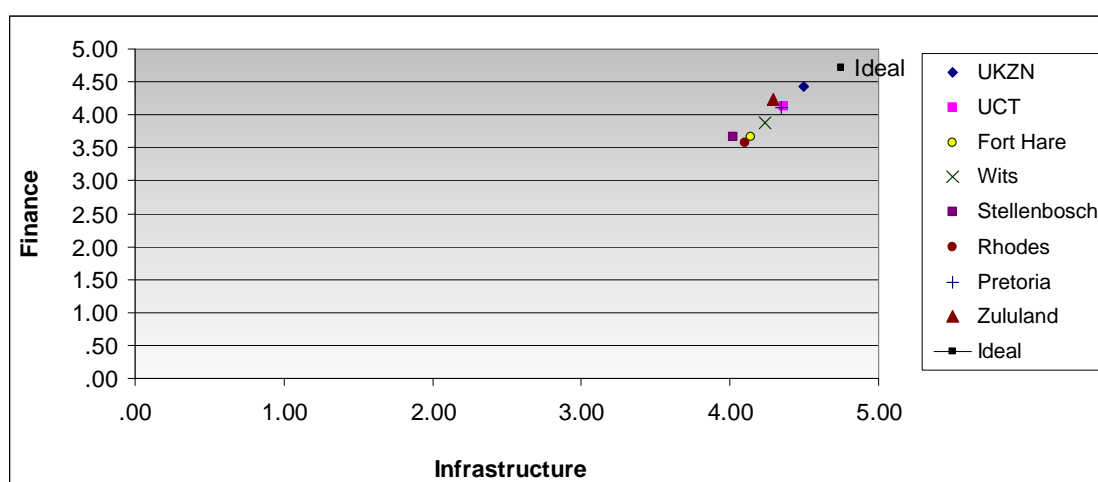
The above graph provides a visual representation of the level of importance of the factors used for selecting a university by the responses as well as the ratings of the various universities included in this study on these factors. This visual representation is part of the positioning process (Walker *et al.*, 2006, p.158-167) as discussed in the Literature review Chapter. Mean scores were used for the ratings of the university.

As can be seen in the graph above the target market's need, which is the level of importance of the factors, exceeds their rating of the universities for many factors. The factors for *distance from university (near and far)* were not important to the respondents. All universities exceeded the target market's expectation in terms of Factor 9: *quality of life*. UKZN was rated the highest for all except one factor compared to the other universities. The one factor was *distance from university (far)* which was not important to the respondents. The University of Zululand was rated the second highest for six factors: *Communication, financial assistance, feedback, quality of life, security, sport and independent* whilst UCT was rated the second highest for five factors: *reputation, quality offered, employment, infrastructure and graduates*. University of Pretoria was rated second highest for *education*.

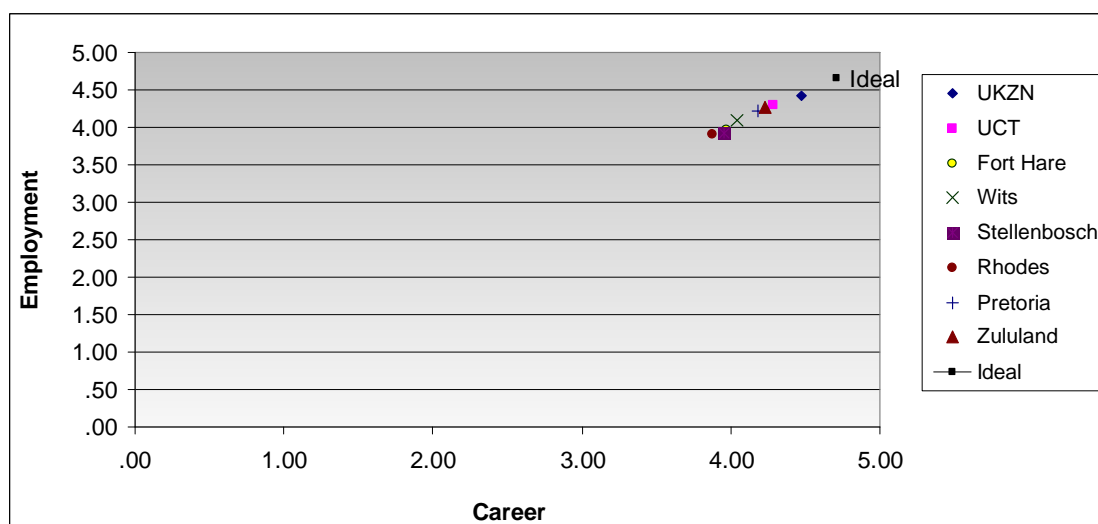
The biggest gap in terms of the highest rating of the universities and the respondents' ideal position was in the area of *financial assistance* and this was followed by *infrastructure of the university*. Both these factors are of particular importance to this target market because of their disadvantaged background.

The following two graphs display the positioning maps for the top four factors of importance to the target market in their decision of which university to attend. As can be seen in both maps UKZN is the closest to the most ideal position, i.e. the preference of the target market for these factors but the other universities are not too far behind. There is also possibly some bias in the response to UKZN as the respondents may have answered what they thought we wanted to hear to get financial assistance.

Graph 8.5: Positioning Map for Factors: Financial Assistance and Infrastructure



Graph 8.6: Positioning Map for Factors: Employment and Career



The biggest gap was in the area of financial assistance (.28) and this was followed by infrastructure of the university (.25). Both these factors are of particular importance to this target market because of their disadvantaged background.

4. *Have you heard about the Augmented programme at the University of KwaZulu-Natal?*

Table 8.18: Awareness of UKZN's Augmented Programme

	Frequency	Percent
No.	340	65%
Yes	87	17%
No response	93	18%

The majority of the respondents, i.e. 65% were not aware of the Augmented programme at the University of KwaZulu-Natal.

5a. *The Foundation Programme is an access course for students from disadvantaged schools who do not meet the requirements for direct entry into a Science degree. It is offered on both the Pietermaritzburg and Westville campuses of the University of KwaZulu-Natal. If you were going to apply for the programme which campus would you like to study at?*

Table 8.19: Choice of campus

	Frequency	Percent
Pietermaritzburg	234	45%
Westville	207	40%
Wouldn't apply	28	5%
No response	51	10%

The largest number of the respondents, i.e. 45% preferred to study on the Pietermaritzburg campus.

5b. If you apply, why would you choose that campus?

Table 8.20: Reasons for choice of campus

		1. Strongly Disagree		2. Disagree		3. Agree		4. Strongly Agree		No response	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
1	It is closer to home	61	12	137	26	126	24	152	29	44	8
2	It is further away from my home	73	14	195	38	113	22	82	16	57	11
3	It is closer to the beach	84	16	152	29	109	21	112	22	63	12
4	The degree I want to study is offered there	13	3	35	7	154	30	261	50	57	11
5	I can save travelling time and money as I will be living on campus	32	6	45	9	163	31	231	44	49	9
6	It will be cheaper, I can live at home and travel daily	128	25	173	33	80	15	76	15	63	12
7	Other										

Table 8.21 Means and Standard Deviation for Results of Reasons for choice of campus

		Mean	Standard Deviation
1	It is closer to home	2.78	1.035
2	It is further away from my home	2.44	.958
3	It is closer to the beach	2.54	1.053
4	The degree I want to study is offered there	3.43	.752
5	I can save travelling time and money as I will be living on campus	3.26	.890
6	It will be cheaper, I can live at home and travel daily	2.23	1.035
7	Other	2.57	1.158

A large majority, i.e. 80% of the respondents agreed with Statement 4, i.e. *the degree they want to study is offered there*, as the reason for their choice of campus, i.e. for example they chose to study in Pietermaritzburg because the degree they want to study is offered in Pietermaritzburg. This was closely followed by 76% agreeing with the reason, *being able to save travelling time and money as they will be living on campus*.

Reasons for the 'Other' category included: "I will get enough time to study" (6 responses), "maybe there is good information" (1), "more knowledge" (2), "the course I want to do" (1), "good

education” (1), “I can learn with peace and being independent” (1) “and I don’t care about anything only studying” (1).

6. *Are you aware of any advertising that the Centre for Science Access (CSA) at UKZN does?*

Table 8.22: Awareness of CSA’s advertising

	Frequency	Percent
Yes	150	29%
No	236	45%
No response	134	26%

Only 28% of the respondents were aware of the advertising done by the CSA. More of the respondents, i.e. 45% were not aware of the CSA’s advertising. A large proportion of the respondents, i.e. 26% did not answer this question. It is possible that they might have experienced fatigue from the questionnaire at this stage as it was towards the end or were not sure what was meant by advertising.

7. Which of the following ways of advertising do you think the CSA should use to reach you?

Table 8.23: Appropriate advertising strategies

		1. Strongly Disagree		2. Disagree		3. Agree		4. Strongly Agree		No response		Mean	Std Deviation
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
1	Send CSA students (from our community) to visit our school and do a presentation about the access programmes	14	3	35	7	172	33	252	48	47	9	3.40	.753
2	Send a staff member to visit our school	10	2	28	5	170	33	268	52	44	8	3.46	.702
3	Advertise on Ukhozi radio station	15	3	41	8	198	38	220	42	46	9	3.31	.761
4	Put up posters in our community	15	3	54	10	217	42	182	35	52	10	3.21	.768
5	Use cellphone advertising	24	5	88	17	192	37	170	33	46	9	3.07	.862
6	Show us successful university graduates	4	1	35	7	194	37	236	45	51	10	3.41	.666
7	Advertise on television	11	2	29	6	176	34	255	49	49	9	3.43	.714
8	Advertise in newspapers	8	2	25	5	195	38	224	43	68	13	3.40	.677
9	Other											2.97	.836

For each of the eight suggested forms of advertising the majority of the respondents agreed that these were appropriate for the CSA to use in reaching them. According to the students responses “sending a staff member to the school” would be the most effective with 84% of the respondents agreeing. This was closely followed by advertising on television (83%), showing them successful graduates (83%), sending CSA students (from their community) to visit the school and to do a presentation about the access programmes (82%) and advertising in newspapers (81%). Cellphone advertising was not as highly recommended as the other forms of advertising with 70% of the respondents agreeing. Other suggestions, which were not very significant, included: advertise at school (2), advertise on facebook (2), advertise on Mixit (1) advertise via email (1) magazine (4) and organise career guidance (4).

8.5 Results of Section D

1. What are your opinions about UKZN?

Table 8.24: Opinions about UKZN

		1. Strongly Disagree		2. Disagree		3. Agree		4. Strongly Agree		No response		Mean	Std Dev
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
1	UKZN is a great university	3	1	20	4	202	39	223	43	72	14	3.44	.614
2	UKZN has good security	4	1	23	4	259	50	156	30	78	15	3.28	.602
3	UKZN is a safe place	2	0	16	3	268	52	159	31	75	14	3.31	.561
4	UKZN has lovely campuses	3	1	17	3	246	47	170	33	84	16	3.34	.586
5	UKZN provides quality education	1	0	11	2	219	42	223	43	66	13	3.46	.558
6	The students from UKZN are friendly	18	3	76	15	244	47	99	19	83	16	2.97	.752
7	UKZN helps the community	13	3	63	12	247	48	119	23	78	15	3.07	.725
8	UKZN does not provide sufficient career information	50	10	112	22	163	31	103	20	92	18	2.75	.952
9	UKZN graduates are successful	4	1	28	5	208	40	198	38	82	16	3.37	.645
10	UKZN is slow in responding to its applicants	48	9	156	30	137	26	69	13	110	21	2.55	.905
11	Other (please specify)											2.74	1.010

The majority of respondents commented positively about UKZN with mean scores indicating general agreement with the statements. The highest score of 3.46 was for statement: *UKZN provides quality education* whilst the lowest was 2.55 for *UKZN is slow in responding to its applicants* which is only just into agree.

Other included: “People I know did their degree at UKZN are all working” (1), “UKZN has bursaries and loans” (1), “UKZN is responsible for each person’s vision and progress” (1) and “UKZN is the most successful university” (1).

2. *The University of Natal and the University of Durban Westville merged (joined) to form the University of KwaZulu-Natal (UKZN) in 2004. Did you know about this merger?*

Table 8.25: Awareness of merger

D2					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	130	25.0	26.7	26.7
	No	357	68.7	73.3	100.0
	Total	487	93.7	100.0	
Missing	System	33	6.3		
Total		520	100.0		

The majority of the respondents, i.e. 69%, were not aware of the merger of the former universities of Natal and Durban Westville to form the University of KwaZulu-Natal.

3a. *Does this merger affect your decision about which university to attend?*

Table 8.26: Effect of merger

D3A					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	50	9.6	10.8	10.8
	No	415	79.8	89.2	100.0
	Total	465	89.4	100.0	
Missing	System	55	10.6		
Total		520	100.0		

For this question 79% of the respondents indicated that the merger does not affect their decision of which university to attend.

3b. *If so, how*

Table 8.27: Reasons given for effect of merger

	Number of responses
The university is now closer to my home, which makes it easier for travelling	6
The standard of education has increased	4
The university is good	3
The merging of both universities created a good reputation	1
It means they work together	1
I don't know the university	1

Of the 10% of the respondents who answered Yes to Question 3a, i.e. the merger has affected their decision of which university to attend, very few gave reasons as to how this affected them.

4. Describe UKZN in 3 words

The table below includes the respondents' description of UKZN. Using content analysis the responses were categorised into themes and ordered from the highest number of responses to the least for responses given by more than one respondent.

Table 8.28: Description of UKZN

	Number of responses	% of total responses
It is a good/great university	88	16.9
Good quality education	79	15.2
Successful	49	9.4
Safe/good security	33	6.3
Helps one get a good career/future	21	4.0
Successful/intelligent/well educated graduates	20	3.8
It is an excellent university	18	3.5
Lovely university	14	2.7
Best university	14	2.7
Beautiful, good atmosphere and facilities	13	2.5
Friendly and Kind	10	1.9
Good/quality/well educated lecturers	7	1.3
Responsible	6	1.2
Good reputation	6	1.2
Helps community	5	1.0
Motivating	5	1.0
Helpful	4	0.8
Good opportunities	3	0.6
Provides bursaries/financial assistance	3	0.6
Friendly students	3	0.6
Fun	3	0.6
Informative	3	0.6
Supportive	2	0.4
Close to home	2	0.4
Innovative	2	0.4
Good entertainment	2	0.4
Good communication	2	0.4
Interesting	2	0.4
Helps improve our poor life	2	0.4
Comfortable	2	0.4

Respondents gave mostly positive descriptions for UKZN. The top descriptions given to UKZN was that it was a “good/great university” (17%), followed by “it offers good quality education” (15%) and “it is successful” (9%).

5. *What in your opinion is UKZN best known for?*

The table below includes the respondents’ opinions of UKZN and ordered from the highest number of responses to the least for themes mentioned by more than one respondent.

Table 8.29: UKZN Best Known For

	Number of responses	% of total responses
Good/Quality/Best Education	95	18.3
Successful graduates	78	15.0
Best/good/Excellent University	26	5.0
Safe place/good security	19	3.7
Good/Excellent results	18	3.5
Good job opportunities for graduates	10	1.9
Best qualifications/career	8	1.5
Helping the community	8	1.5
I don’t know	7	1.3
Lovely campuses	6	1.2
Provides financial assistant to poor students	6	1.2
Friendly	5	1.0
Good information	5	1.0
Helps one achieve their dreams	5	1.0
Good educators	4	0.8
Is slow in responding to applicants	3	0.6
Cultural diversity	3	0.6
Good accommodation	2	0.4
Is fast in responding to applicants	2	0.4
Helps solves problems	2	0.4
Law and Medicine	2	0.4
Engineering	2	0.4

The respondents’ opinions of UKZN were also mostly positive. The top opinions were that UKZN offers good/quality education (18%), followed by it has successful graduates (15%) and it is the best/an excellent university (5%).

8.6 Conclusion

This chapter presented the findings for Stage 2, the quantitative part of this study, i.e. the written questionnaires. These findings are discussed in more detail and conclusions are drawn in the next chapter.

Chapter 9: Discussion and Conclusions

9.1 Introduction

This study attempted to better understand why the Foundation Programme at the University of KwaZulu-Natal was not meeting its enrolment targets over a 5-year period on the Pietermaritzburg campus. The researcher felt that this was a complex problem with more than one factor contributing to this problem. Thus the research question formed for this study was: *What factors contribute towards the Foundation Programme at UKZN not attracting sufficient applicants to meet its enrolment targets on the Pietermaritzburg campus?*

This chapter includes a discussion of the findings from both stages of the study and is structured in order of the objectives set to answer the above research question. The researcher sought to apply the triangulation method by bringing together the literature, findings from Stage 1, i.e. the qualitative focus groups and findings from Stage 2, i.e. the quantitative research questionnaire in this discussion. Before the discussion of the objectives a background is provided which includes some of the general findings. These help set the ‘scene’ especially in describing the target market.

9.2 Background to Discussion

The majority of the respondents (88%) indicated that they would like to attend university. These results addressed the researcher’s concern about making the assumption that the target market are in fact interested in attending university. This was especially important as the target market experience a wide range of financial, social and economic difficulties (Science Foundation Programme, 1998, p.7) that it may be possible that they find these difficulties insurmountable and therefore not even contemplate a university education. However the target market represented by this sample does indeed contribute positively to this research as they show an interest in university studies.

The question on breadwinners in the family or home indicated that the respondents came from homes where neither their parents nor their guardian was working (27%) emphasising the financial plight of the target market for the access programme. This was followed by a large proportion of the respondents where only one of the parents was working (24% for father and 10% for mother).

Key individuals influence the respondents’ decision about which university to attend. They can do this by making comments that can create particular expectation about a university and offering advice on which university to choose (Joseph and Joseph, 1998, p.91) Parents were the most

influential with 71% of the respondents agreeing that supports what was found in literature. Chapman (1981, cited in Joseph and Joseph, 1998, p.93) believes that of all the significant persons the parents are the ones who have the greatest impact on the students' choice. According to the respondents, the teacher is the second most influential person in their decision about which university to attend with 62% agreeing. According to Maringe (2006, p.473) secondary school teachers are very influential in the university decision making. In the case of the target market, teachers are likely to be more educated than their families (Boekhorst, 2004, p. 67) and would be relied upon to give sound advice. Family was rated as the third most influential for the target market with 60% agreement. No one (i.e. they are self-motivated) had 60% agreement in influencing the respondents' decision of which university to attend. In the case of other university students 58% of the respondents agreed that they influenced their decision. The results showed that 49% of the respondents agreed that friends influence their decision. In the focus groups the participants indicated that "friends encouraged each other to be successful by getting a good education, a good job and improving their lifestyle'. They also spoke of "having their friends with them would make studying more enjoyable and thus they would want to attend the same university". The results also showed that friends were influential in cases where the guardian was the breadwinner. These results provide useful information for the marketing strategies in respect to who the advertising should be directed to or include. Significant people play a vital role in influencing the target market so the advertising should not be directed to the students alone. The social index was also not demographically specific as the results in the findings chapter shows. This means that gender, living arrangements and breadwinners did not affect the way the respondents answered or the people who most influenced their decision.

Most of the respondents (66%) were not aware of an access programme either at the University of KwaZulu-Natal or any other university (69%). The target market is looking specifically at universities without the knowledge of the route access programmes provide. Their answers to the questions are thus based on their knowledge of the universities.

The majority of the respondents, i.e. 82%, indicated that they are interested in studying a science degree. This high finding is possibly because the sample was limited to students who are doing Mathematics and Science and therefore are more likely to be interested in a science career. This was important to find out as this study focuses on a science context and would be more valuable to have the responses of individuals who are interested in following a science career. This allows for appropriate and specific strategies to be designed for this target market based on these findings.

9.3 Objective 1

Identity determining dimensions, i.e. what factors are looked at when choosing an access programme

Objective 1 identified the factors that were important to the target market for the Foundation Programme in their selection of which university to attend. The discussion for this objective is split into two sections. First the university attributes or the factors affecting the target market's decision in choosing a university is discussed. This is related to the findings for Question B2 of the questionnaire and Questions 3 and 6 of the focus group.

9.3.1 Influential Factors

Most of the identified factors in choosing a university, except distance from home were viewed as important for majority of the respondents. This means that they would be using these factors when making a choice about which university they want to study at. These factors would help them rate each university that they would be considering in their selection. The statistical tests done and reported on in the findings chapter showed that the factors were not demographic specific. In other words both the female and the male respondents answered the questionnaire similarly for each factor. In considering living arrangements, i.e. whether the respondent lived with one or both parents or with a grandparent etc. there was also no difference in the responses. The factors were also not breadwinner specific, i.e. it made no difference as to what the situation at home was with regards to whom or if anyone was the breadwinner, in their responses regarding the factors.

The results of the factors are discussed below using the means to rank from highest to lowest.

Infrastructure of the academic facilities, finance and vocation, were the top 3 highest in terms of importance to the respondents in how they would choose a university.

Infrastructure of the university, i.e. facilities e.g. library, laboratories, computer labs, accommodation etc, was the most important factor for this target market with a mean score of 4.75 were 5 is very important. Students for the access programme are specifically chosen from disadvantaged schools where there is a lack of resources and facilities. The target market would have experienced an education with little or no exposure to libraries, laboratories, computer labs etc (Grayson, 1996, p.993, Fiske and Ladd, 2006, p.96 and Boekhorst, 2004, p. 67). Participants from the focus groups were particularly interested in laboratory facilities as this exposure was something

they lacked during their schooling. They seem to be aware of the importance of these facilities on the quality of their education. Attending a university that is well structured with these facilities can help to prepare the student for the working world by giving them the practical experience and knowledge that is needed. The infrastructure of the university can cause one university to be rated higher in terms of perceived quality of education compared to another. It also provides value for money spent. Infrastructure of the university is also where this service can be made more tangible for its effective positioning (Blankson and Kalafatis, 1999, p.109). The customers or target market can actually see the library and laboratories etc. thus it provides the physical evidence of the service (Zeithaml and Bitner, 2003, p.25).

Financial assistance from the university, i.e. loans or bursaries or low cost of fees, was also very important for the respondents in their choice of university and had a mean score of 4.72. As discussed previously the target market for the access programme experience economic difficulties which cause much anxiety and negatively affects their academic work (Science Foundation Programme, 1998, p.7 and Schafer (2006) cited in Robotham and Julian, 2006, p.111). Pavlich *et al.* argue that for an effective access programme students must be catered for in non-academic ways such as financial aid (1995, cited in Essack and Quayle, 2007, p.74). It makes sense that this factor is so important to the target market and a criterion that they would use in the selection of a university. Universities and more specifically access programmes face the challenge of catering for this genuine need of students and the continued pressure of decreased funding for higher education (De Villers and Steyn, 2006, p.36). Also, considering that no one or only one parent of most respondents are actually working, financial assistance from the university becomes non-negotiable and could very well determine which university a student may attend. Repeatedly in the focus groups participants mentioned the lack of finances and its impact on their university education thus emphasising its importance.

Vocation relates to the university offering the career and qualification that the student would want to study and had a mean score of 4.71. The type of course that the respondents want to do has implications for their career and employment. It would seem that the respondents are also quite specific in what they want to study. In another words they don't just want to be a university student or have a university degree but they want to go into a specific field of study. Soutar and Turner (2002, p.40) found this factor to be important to students in general when choosing a university. As this factor rates highly for the respondents it means that they would possibly choose to go to a university that is offering the qualification they want to study.

Employment was the factor of importance to the respondents in choosing a university. *Employment* (mean score 4.66), i.e. studying at that university will lead me to employment, is understandably important for this target market. In Stage 1 of this research, during the focus groups, the respondents felt quite strongly about “wanting to change their financial plight”. They were determined that they “will be the ones to help their families come out of poverty and lead them to a comfortable life” as this target market has experienced extreme poverty (Science Foundation Programme, 1998, p.7). Being able to get a good job after qualifying is important to the respondents. They are not only interested in the experience of studying at university or having a qualification behind their name but know the importance of their qualification in getting them good jobs that will sustain them financially. Employability also shows a concern for long-term need fulfilment and not just the short term aspects of being a student (Bonnema and Van der Walt, 2008, p.319).

Quality education was the next important factor in choosing a university for the respondents with 85% agreeing and a mean score of 4.61. Quality education include the quality of the teaching staff (Garden, 2003, p.165 and Soutar and Turner, 2002, p.40). Getting a quality education is the main reason why students attend a university and is the core aspect of the service offering (Lovelock, 1996, p.339). As discussed previously this target market had a disadvantaged education (Fiske and Ladd, 2006, p.96, Brown, 2006, p.512 and Boekhorst, 2004, p. 67). The respondents are aware of the implications of a good or poor education and are aiming to improve their lives through a good education. The teaching staff affects the quality of the education and the service provided by the university. As people are a vital element of the marketing mix and affect the quality of service received (McColl *et al.*, 1998, p.20) the teaching staff play an important role in the core service. Their skills, knowledge, experience and demeanour with students all help give the student a valuable service. Beside the delivery of the course, the focus group participants agreed that they would “depend on the teaching staff for guidance and expect them to be supportive towards them”. Thus the target market views quality education as an important attribute of a university and would use this in their selection of which university to attend. The focus group participants believed that quality education would help them change their circumstances. The quality of the teaching staff could be measured in a number of ways such as ratings given by external bodies which considers their qualifications, research, publications and evaluations by current students and graduates.

Security (mean score: 4.54) was rated as an important factor for the respondents when choosing a university. Security or feeling safe is a basic but important need for individuals. Maslow’s in his

Hierarchy of Needs states that basic physiological and safety needs must first be met in order to achieve the higher needs, i.e. social, esteem and self-actualisation needs (Kotler and Armstrong, 2008, p.143). Some of the participants in the focus groups said that “security would be the most important factor for them”. They “want to go to an institution where they felt safe”. “Good security will allow them to focus on their studies”. Going to university would also mean that the target market is in a new environment, possibly a new area, and there isn’t the support and protection of family. Some might even be staying in campus accommodation. Thus it is important for the target market to go to a university where they feel safe.

Graduates (mean score of 4.47) refer to the respondents seeing successful graduates of the university, i.e. they have completed their qualifications and are employed in good careers. Seeing successful graduates is encouraging for the prospective student according to the focus group participants. Successful graduates speak of the institution’s ability in grooming and guiding its students to achieve their career goals. Thus it makes success more attainable for the target market. The majority of the respondents, i.e. 82% indicated that they are interested in studying a science degree. In South Africa there is a shortage of, and need to increase the number of science graduates. There has also been poor performance particularly in Mathematics and Science (Scott *et al.*, 2007, p.11, National Assessment of Educational Progress, 2004 cited in Jordan *et al.*, 2006, p.153 and Department of Education, 2001, p.12). Thus the respondents need to see that it is possible for individuals to achieve success at a particular university and more especially in a science degree. Having successful graduates can be a strength and achievement of an institution which can separate it from others. This is important for its positioning and can help create the “distinctiveness” (McDonald and Payne, 1996, p.97) it needs for a service.

Communication was rated the next highest with a mean score of 4.4. Communication from the university is through written information such as posters or brochures or presentations by a university staff or other forms of advertising. Communication from the university can reflect its professionalism and the quality it offers. In the focus groups in Stage 1 of the research; participants were particularly keen on visits to their schools as this would give them an opportunity to ask questions thus making it two-way communication. They also felt that written communication provided important information for them regarding the courses they wanted to do. Sometimes communication from the university creates the first impression of the institution for the prospective student. Joseph and Joseph (1998, p.95) conclude that “promotional activities developed by tertiary institutions should support their market positioning and reflect the importance of the value of

education and degree (content and structure) attributes”. Thus the communication from the university should be of a high standard and reflect the professionalism of the university.

Positive feedback from students attending that university had a mean score of 4.34. Students attending a particular university are already experiencing the journey that a prospective student is contemplating. Their opinions then become important and the target market might also find it easier to relate to them. Positive feedback from students attending that university is considered word-of-mouth communication (Kotler and Armstrong, 2004, p. 476). This form of marketing communication is very powerful and very influential in creating impressions and making decisions. The focus group participants felt that the university students would not lie to them and therefore their opinion could be relied upon. This factor is therefore one that the target market trusts and would rely on in choosing which university to attend.

The *reputation of the institution* was an important factor in their selection of a university. This has a mean score of 4.29. The reputation of the institution speaks of the performance of the institution, quality, history, legitimacy, staff and its general management. Building up a reputation can take years and much effort. Veloutsout *et al.* (2004, p.161) suggests that “this is usually related to the earlier performance of the institution rather than its current performance, structure and offering”. The reputation of the institution is often relayed through word-of-mouth communication, through written articles, radio and television, i.e. the public relation activities. The focus group participants in particular, spoke about their parents being unwilling to send them to a university with a bad reputation especially where there is violence etc. occurring. The reputation of the institution has other impacts as well. The focus group participants said that “the reputation of the institution could also help them when they are searching for a job”.

Independent refers to the university allowing the student to be independent. This has a mean score of 4.24. This aspect is an outcome that can be achieved with the right balance of support and exposure for the student which gives them opportunities to develop their independence. Participants from the focus group explained that their time at university would be when they want to grow and learn to do things for themselves. They would also be away from home making it an appropriate time to mature and learn to be more independent. This can be provided through the curriculum which should foster opportunities or activities for students make certain decisions on their own. For example students can liaise with community members on their own regarding a project.

The next important factor in the selection of a university was *sport* with a mean score of 3.92. Bonnema and Van der Walt (2008, p.318) explain that sport includes the opportunities for and the quality of sport at the institution. Sport can take care of relaxation, exercising, competitive and social needs of an individual. Focus group participants felt that sporting activities would help them relax and de-stress. According to Bonnema and Van der Walt (2008, p.321) sport also refers to teamwork and social events. This is only important for certain individuals as the results of the focus groups and the questionnaire shows. Attending university also happens at a time when individuals are often fit and young and therefore physical activity is often sought after.

Quality of life while studying had a mean score of 3.57. This refers to the university atmosphere, entertainment or being with friends while studying at the same university. The surroundings and available facilities become important as students will spend a few years of their lives living in the area (Chapman, 1981, Coccari and Javalgi, 1995 cited in Veloutsou *et al.*, 2004, p.162). There were mixed views about entertainment in the focus groups. Some wanted to attend parties etc. while studying whilst others felt that this was not the reason they were going to university. In the focus groups participants felt that “having friends with them at a university would make it less intimidating and a more enjoyable experience”. This time in their lives is often looked forward to for a long time and therefore they seek an enjoyable experience.

The lowest two rated factors of importance in the selection of a university was *distance from home – far and near*. For *distance near home*, the mean score was 3.17 which is not important. The results also showed that *distance far from home* had a mean score of 3.11 which was also not important. Thus the distance from home was not as important as other factors. There were also mixed feelings about distance from home with the focus group participants. Some said that being closer to home meant that they could visit their parents whenever they wished. Being away from home for other participants meant that they could “forget about all the problems at home and focus on their studying”. “They wanted to be away from their environment so that they could learn to be responsible”. They also felt that “there was too much pressure at home”. Distance from home could include the time taken to get to each university and access to public transport (Soutar and Turner, 2002, p.40). Some students don’t want to waste time on travelling.

9.3.2 Conclusion for Objective 1

It is believed that the decision about where to attend university is a difficult task for most high school pupils as it is a highly involved decision which often affects their future life path (Veloutsou

et al., 2004, p.160). Adding to the complexity of this decision is the current reality of consumers being overloaded with information about various products and services and consumers deal with this by organising products and services into categories and 'position' them in their minds (Kotler and Armstrong, 2004, p.259). Consumers use a set of criteria based on features or benefits when evaluating and deciding amongst the competing alternatives in a product or service (Palmer, 2011, p.157 and Hawkins *et al.*, 1998, cited in Yamamoto, 2006, p.561). In the discussion above the importance of the various factors or criteria that influence the target market's decision about which university to attend were looked at. Soutar and Turner (2002, p.40) argue that some of the factors that influence a student's decision of which university to attend are more important than others and in determining their university preferences students will consider what is important to them and, consciously or unconsciously, trade-off between these attributes. These factors should therefore be looked at by the university and in particular the access programme and included in their marketing mix. If the university is offering the important factors for this target market then it is more likely to be the one that the prospective student selects. Infrastructure of the academic facilities, finance and vocation were the top three factors of importance.

Many of the factors discussed above, apart from a quality education which is the core service (Lovelock, 1996, p.339) also form the petals of the service to the target market. Quality education is the main service that the target market seek, but surrounding this are other important attributes that are sought after and add value to the core offering for the target market such:

- as *financial assistance* (payment petal) for example loans or bursaries that cover tuition and accommodation expenses,
- the *infrastructure and facilities of the university* (hospitality petal) for example computer LANs, laboratories and sporting facilities ,
- finding *employment after studying* (exception petal) example internship or graduate recruitment programmes that help secure employment for the student,
- *security* on campus (safekeeping petal) example surveillance cameras and guards on campus,
- *good communication from the university* (information petal) example posters, brochures or letters with clear instructions of what qualifications are offered and how to apply ,
- *studying at an institution with a good reputation* (consultation petal) example awards given to the university for being the top researching institution,
- *sporting opportunities* (hospitality petal) for example having sporting clubs for swimming, tennis etc.

- *quality of life while studying* (consultation petal) for example musical concerts or shopping centres nearby with hairdressers or movies etc.

The Access Programme should look at both the core service and its surrounding petals when aligning itself to the target market's determining dimensions. This provides the added value for the target market.

9.4 Objective two

Determine how various products rate on those dimensions to determine how the Foundation programme is positioned within the target market relative to competing programmes

Objective 2 discusses the findings that UKZN had the highest rating amongst the universities but still had gaps between their rating and what the respondents' needs were. 'Products' here refers to the competitors of the Foundation programme and includes alternatives for the target market besides attending university or access programmes.

Beside going to university, 58% of the respondents indicated that they were considering finding a job and 25% of the respondents were considering working in their family business. The focus group participants answered similarly indicating they were considering working as an alternative to going to university. For the focus group participants there was a sense of urgency to make money so that they could improve their home circumstances. Some focus group participants felt that by working immediately after finishing school they would limit the income they earn. The data for the questionnaires also showed that if the respondent answered (in response to what else they are considering doing beside going to university) that they are considering finding a job, this did not have any significant difference in the way they rated UKZN except for the factors related to the university's proximity to their home and the university allowing them to be independent. As mentioned in previous discussion distance from home was not so important to the respondents in their decision of which university to study at.

The results showed that 51% of the respondents were not considering going to any other university besides UKZN however, 39% of the respondents were considering going to other universities besides UKZN. Of these Durban University of Technology (11%) was the most favoured alternative but, University of Johannesburg (4%), University of Cape Town (4%), University of Pretoria (4%), University of Zululand (3%), Mangosuthu University of Technology (2%) and UNISA (2%) were

also mentioned. Thus the other universities represent direct or brand competitors to UKZN. All these institutions, apart from Mangosuthu University of Technology are known to have an access programme (Pinto, 2001, cited in Rollnick, 2010, p.44). Only 4 of the focus group participants indicated they were considering another institution besides UKZN each mentioning one. These included DUT, University of Rhodes, University of Stellenbosch and Boston College.

9.4.1 University scores on the important factors

In the comparison of the positive ratings (i.e. good and excellent responses) for each factor across the universities UKZN had the highest responses for all except one factor *the university is far from my home*. In this case UCT's rating was higher. The factors are discussed in order of importance, i.e. the mean scores. Mean scores indicated in the discussion below are specific to that institution.

For *infrastructure of the university, (facilities e.g. library, laboratories, computer labs, accommodation etc.)* Factor 13 where UKZN was given the highest mean score of 4.50. University of Cape Town was given the second highest mean score of 4.36 and followed by University of Pretoria with 4.35 for this factor. Thus the respondents perceive UKZN to be the best in this area but the other universities were very close. This the most important factor for the respondents which had a mean of 4.75. The focus group participants were particularly interested in laboratory facilities as this exposure was something that they lacked during their schooling. Many of the disadvantaged schools are known to not have any laboratories or equipment. "During the apartheid era resources were lavished on schools serving white students while schools serving the black majority were systematically deprived of qualified teachers, physical resources and teaching aids such as textbooks and stationery" (Fiske and Ladd, 2006, p.96).

For Factor 2, *financial assistance (loans or bursaries)* was given the highest mean score of 4.44 for UKZN. University of Zululand was given the second highest mean score of 4.24, followed by University of Cape Town with 4.13 for this factor. Thus the respondents perceive UKZN to be the best in this area too but again the other universities are very close. This factor was the second most important factor for the respondents in their selection of a university with an importance score of 4.72. There is a small difference of 0.28 between UKZN's rating and the respondents expectation. The issue of finance is huge for this target market. The target market for the access programme experience economic difficulties which cause much anxiety and negatively affects their academic work (Science Foundation Programme, 1998, p.7 and Schafer (2006) cited in Robotham and Julian,

2006, p.111). Repeatedly in the focus groups participants mentioned the lack of finances and its impact on their university education. The cost of fees is thus a real concern for them.

Factor 4, *Vocation, i.e. the careers and qualifications offered*, has the highest mean score of 4.47 for UKZN. University of Cape Town was given the second highest mean of 4.28 and this was followed by University of Zululand with a mean of 4.23. This the third most important factors for the respondents which had a mean of 4.71. There is a small difference of .23 between the target market ideal position and UKZN's rating indicating their satisfaction with UKZN. The focus group participants were very sure of what they wanted to study and were not just interested in being a university student. They also said that they would go to the institution that offered the qualifications or career they wanted to do and also who are known to be the best in that qualification. This factor was also important for students around the world as shown in literature (Bonnema and Van der Walt, 2008, p.318 and Soutar and Turner, 2002, p.40).

Factor 5, *studying at that university will lead me to employment*, was given a mean score of 4.43 for UKZN. University of Cape Town was given the second highest mean score of 4.30 followed by University of Zululand with 4.26 for this factor. Thus the respondents perceive UKZN to be the best in this area. This was the fourth most important factor to respondents in their university selection with a mean of 4.66. Bonnema and Van der Walt (2008, p.318) referred to employability of a university as aspects of the institution that will enhance the chances of gaining employment after the completion of studies. This also shows a concern for long-term need fulfilment and not just the short term aspects of being a student (Bonnema and Van der Walt, 2008, p.319). This is an important area for this target market because of the financial difficulties they experience. Focus group participants expressed a strong desire to find good employment after their university studies so that they can change their financial circumstances and support their families.

For Factor 11, *quality education (includes quality teaching staff)* the highest rating was given to UKZN with a mean of 4.52 which was also its highest rating among all the factors. University of Pretoria was given the second highest mean score 4.34 and this was followed by University of Cape Town with a mean of 4.33. Thus the respondents perceive UKZN to be doing well in this area. In terms of importance this factor was the sixth most important with a mean of 4.61. Focus group participants felt that they could change their circumstances by having a quality education. Getting a quality education is the main reason why students attend a university and is the core aspect of the service offering (Lovelock, 1996, p.339). The teaching staff plays a huge role in affecting the

quality of the education received. According to Garden (2003, p.165) “highly qualified lecturers would be seen as an indicator of a quality university and therefore quality education. People are a vital element of the marketing mix and affect the quality of service received (McColl *et al.*, 1998, p.20).

Factor 10, *Security*, was given a mean score of 4.42 for UKZN. University of Zululand was given the second highest mean score of 4.33 followed by University of Cape Town with 4.32 for this factor. Thus the respondents perceive UKZN to be the best in this area but there is still room for improvement. Security was important to the respondents with a mean of 4.54. Focus group participants said having good security would allow them to focus on their studies. Safety is a basic need. Abraham Maslow’s in his theory on the Hierarchy of Needs states that basic physiological and safety needs must first be met in order to achieve the higher needs, i.e. social, esteem and self-actualisation needs (Kotler and Armstrong, 2008, p.143).

Factor 14, *seeing successful graduates of the university*, was given mean score of 4.47 for UKZN. University of Cape Town was given the second highest mean score of 4.30 followed by Universities of Zululand had a mean score of 4.29 of for this factor. Thus the respondents perceive UKZN to be the best in this area. This was an important factor for the respondents with a mean of 4.47. Having successful graduates can be a strength and achievement of an institution which can separate them from others. This is important for its positioning and can help create the “distinctiveness” (McDonald and Payne, 1996, p.97) it needs for a service.

In Factor 1, *communication from university* UKZN had a mean score of 4.42 for UKZN regarding this factor. The next highest rating for this factor was given to University of Zululand who had a mean score of 4.23 followed by University of Pretoria with 4.20. Thus the respondents perceive UKZN to be the best in this area. According to Joseph and Joseph (1998, p.95) “promotional activities developed by tertiary institutions should support their market positioning and reflect the importance of the value of education and degree (content and structure) attributes”. This is reflective in the university’s communication through written information such as posters, brochures, letters, and presentations by a university staff or other forms of advertising. As discussed earlier this was an important factor for the respondents with a mean of 4.4. Participants from the focus group indicated that this would influence them in which university to attend.

Positive feedback from university students attending that university, Factor 6, was given mean score of 4.31 for UKZN. University of Zululand was given the second highest mean score of 4.10 followed by University of Cape Town with 4.05 for this factor. Thus the respondents perceive UKZN to be the best in this area. In terms of importance factor had a score of 4.34. The focus group participants felt that the university students would not lie to them and therefore their opinion could be trusted.

Reputation of the institution, which was Factor 3, was given a mean score of 4.29 for UKZN. University of Cape Town was given the second highest mean score of 4.14 followed by University of Pretoria with 4.08 for this factor. Thus the respondents perceive UKZN to be the best in this area. This factor was important to the respondents with a mean of 4.29. The focus group participants also felt that the reputation of the institution would help them when they are searching for a job. They also spoke about their parents being unwilling to send them to a university with a bad reputation especially where there is violence etc. occurring. Veloutsout *et al.* (2004p.161) suggests that “this is usually related to the earlier performance of the institution rather than its current performance, structure and offering”. The reputation of the institution speaks of the performance of the institution, quality, history, legitimacy, staff and its general management.

Factor 15, *the university will allow me to be independent*, was given a mean score of 4.39 for UKZN. University of Zululand was given the second highest mean score of 4.36 followed by University of Cape Town with 4.27 for this factor. Thus the respondents perceive UKZN to be the best in this area. In terms of importance this factor scored 4.24. Participants from the focus group explained that their time at university would be when they want to grow and learn to do things for themselves. They would also be away from home making it an appropriate time to mature and learn to be more independent.

Factor 12, *sports*, was given a mean score of 4.31 for UKZN. University of Zululand was given the second highest mean score of 4.22 followed by University of Pretoria with 4.18 for this factor. Thus the respondents perceive UKZN to be the best in this area. Bonnema and Van der Walt (2008, p.318) explain that **sporting** includes the opportunities for and the quality of sport at the institution. Respondents had indicated this was important to them and this scored 3.92. Focus group participants were divided regarding whether sports was important to them. According to Bonnema and Van der Walt (2008, p.321) a university being sporting also includes the social aspects such as being in a team and meeting people.

For *quality of life while studying (university atmosphere, entertainment or being with friends studying at the same university)*, Factor 9, the ratings of the universities exceed the respondents ideal position, i.e. the importance of it which had a mean of 3.57. UKZN was rated the highest with a mean of 4.14. University of Zululand was given the second highest mean score of 4.11 followed by University of Cape Town with 4.01 for this factor. Thus the respondents perceive the universities to be great in this area. The surroundings and available facilities becomes important as students will spent a few years of their lives living in the area (Chapman, 1981, Coccari and Javalgi, 1995 cited in Veloutsou, 2004, p.162). There were mixed views from focus group participants concerning entertainment, some felt this was important whilst others felt that it was not the purpose of them coming to university.

Apart from distance from home none of the negative ratings for any of the universities were significantly high. Although UKZN stands out from other institutions in all but one factor, there is still room for improvement in these areas. However the other universities had very close scores to UKZN. There is possibly proximity or familiarity bias for UKZN.

9.4.2 Perceptions about UKZN's position

UKZN was rated the highest in all but one factor, which was not important to the respondents, and is closest to the target market's ideal position. Looking at the University of KwaZulu-Natal specifically, in each of the factors, except for the factor *the university is far from my home* (mean score: 3.14), the majority of respondents rated them positively, i.e. good or excellent. UKZN had mean scores rating from 3.14 to 4.52. The University of KwaZulu-Natal was rated the highest for Factor 11 *quality education* with a mean score of 4.52. This was followed by Factor 13 *infrastructure of the university* with a mean score of 4.50 and then Factor 4 *career and qualification offered* and Factor 14 *successful graduates of the university* which each had a score of 4.47. Although UKZN was rated the highest for all the factors when compared to the other universities it should not be complacent as the other universities' scores were very close to it. The rating of UKZN is possibly skewed due to proximity or familiarity bias. There were no significant differences between the schools in the way the respondents rated UKZN.

Looking at the written responses, i.e. section D, regarding UKZN, these were mostly positive. 82% of respondents agreed that UKZN is a great university. Other positive responses included: Good security (80%), safe place (82%), lovely campuses (80%), provides quality education (85%), students from UKZN are friendly (65%), helps the community (70%), and graduates are successful (78%). These are attributes where UKZN is perceived to be doing well. Focus group participants also gave mostly positive comments about UKZN. Participants thought of the UKZN as a “great university that offers quality education”.

However some areas that did not receive as positive a response included that UKZN does not provide sufficient career information (51%) and UKZN is slow in responding to its applicants (39%). Both of these were also mentioned in the focus groups. Although these are not as high as the others it does mean that UKZN needs to address these areas which are not completely satisfactory to this target market.

Some of the most frequent free responses regarding the description of UKZN included that it is a good/great university (17%), it has good quality education (15%), it is successful (9%), it is safe/good security (6%), it helps one get a good career/future (4%), it has successful/intelligent/well educated graduates (4%), and it is an excellent university (4%).

The respondents’ opinions were that UKZN was best known for its good/quality/best education (18%), successful graduates (15%), best/good/ excellent university (5%), safe place/good security (4%), good/excellent results (4%) and good job opportunities for graduates (2%). Most of the free responses were positive except for one aspect that is that UKZN is slow in responding to applicants (.6%).

Thus the written responses show that UKZN is perceived in a positive light by the respondents. It is seen as a great university with positive attributes such as security, campuses and quality education. An area for UKZN to be address is the time in which they respond to applications as the respondents were not satisfied with this.

Most of the respondents, i.e. 45% preferred to study on the Pietermaritzburg campus whilst 40% preferred to study on the Westville campus. The strong reason given for this was because the degree they wanted to study is offered on that campus. The second strong reason was that they can save travelling time and money as they will be living on campus. The figures for distance from home

was close which meant that an even distribution of the target market prefer to study close to home while others prefer to study far from home. Thus the problem on the Pietermaritzburg campus is not because the target market prefer one campus against another. On the other hand most of the focus group participants preferred studying in Westville. Their reasons included that they were familiar with the campus, it was closer to the beach, they would be far away from home and for the courses offered there. Focus group participants that preferred Pietermaritzburg wanted to be closer to home and felt they could focus on their studies and know more of the students there and would save costs by living at home.

9.4.3 Positions held by the different universities

Overall in the rating of the universities based on the factors important in the selection of a university only a small percentage of respondents rated any of the institutions negatively, i.e. either very poor or poor. This could possibly be due to the respondents not having sufficient knowledge of the universities or the universities seem far better than the conditions they are used to in their schools. A large portion of the respondents had very little knowledge of the universities as seen in the frequencies of the 'I don't know' response in the rating of the universities. "These are their perceptions but perceptions are what individuals base their buying decisions on (Kotler and Armstrong, 2004, p.192 and Wilson *et al*, 1992, p.109). Therefore it is important to know what their perceptions are. Focus group participants has very little or no knowledge of the other institutions or Foundation Programmes that they might offer. Two out of the three schools had never even heard about the Foundation Programme at UKZN. Therefore they were not able to rate UKZN in response to the competing institutions.

Looking at the overall positive ratings and mean scores of the other universities, University of Zululand's rating followed UKZN, being the next highest and this was followed by University of Cape Town.

For the rating of the University of Cape Town the majority of the responses were shared among the positive (i.e. good and excellent) and the unknown (i.e. *I don't know* ranging from 25% to 44% or *no response* ranging from 6% to 11%) with very close percentages. UCT had mean scores ranging from 2.57 to 4.36. The positive responses for the University of Cape Town ranged from 22% to 53%. A large portion of the responses were in the *I don't know* (25% to 44%) or *no response* (6% to 11%) category The highest rated factor for the University of Cape Town was *infrastructure of the*

university with a mean score of 4.36. This was followed by Factor 11, *quality education* with a mean score of 4.33.

There was a different pattern for the University of Fort Hare where majority of the responses were in the *I don't know* (41% to 63%) or *no response* (6% to 11%) categories with ratings from. University of Fort Hare had mean scores ranging from 2.53 to 4.14. For the University of Fort Hare the positive responses ranged from 16% to 31%. The University of Fort Hare was rated highest for *infrastructure of the university* with a mean of 4.14. This was followed by *security* with a mean of 4.07.

Most of the responses for the University of the Witwatersrand was also in the *I don't know* (30% to 50%) or *no response* (6% to 12%) category. University of the Witwatersrand had mean scores ranging from 2.61 to 4.24. The positive responses for the University of the Witwatersrand ranged from 20% to 41%. University of the Witwatersrand was rated highest for the Factor *infrastructure of the university* with a mean of 4.24. This was followed by *quality education* with a mean of 4.20.

A large portion responded in the *I don't know*(40% to 62%) or *no response* (6% to 11%) category for the University of Stellenbosch. There was only 14% to 32% of positive responses on the factors for selecting a university. University of Stellenbosch had mean scores ranging from 2.42 to 4.12. University of Stellenbosch was rated highest for *security* with a mean of 4.12. This was followed by *quality education* with a mean of 4.11.

An even larger response for the University of Rhodes was also in the *I don't know* (41% to 65%) or *no response* (6% to 11) category. University of Rhodes had means scores ranging from 2.44 to 4.16. The positive responses for the University of Rhodes ranged from 15% to 31%. University of Rhodes was rated the highest for *quality education* with a mean of 4.16. This was followed by *infrastructure of the university* with a mean of 4.10.

For the rating of the University of Pretoria the majority of the responses were shared among the positive (i.e. good and excellent – 23% to 50%) and the unknown (i.e. I don't know with 26% to 41% or no response with 6% to 14%) with very close percentages. The University of Pretoria had mean scores ranging from 2.66 to 4.35. The highest rated factor for the University of Pretoria was *infrastructure of the university* with a mean score of 4.35. This was followed by *quality education* with a rating of 43% and a mean score of 4.34.

The University of Zululand's positive responses ranged from 36% to 57%. The University of Zululand had mean scores ranging from 3.21 to 4.36. The University of Zululand was rated highest for Factor 15, *the university will allow be to be independent* with a mean score of 4.36. This was followed by Factor 10, *security* with a mean score of 4.33.

From the results it can be deduced that the respondents know very little about the Universities of Fort Hare, Witswatersrand, Stellenbosch and Rhodes as can be seen in the high *I don't know* responses. The respondents seem to be a little more knowledgeable with University of Cape Town and Pretoria. The highest positive responses were the University of KwaZulu-Natal and followed by the University of Zululand which are both in the province of KwaZulu-Natal and closest to the respondents. Both these also had the highest mean scores.

9.4.4 Conclusion for Objective 2

Thus is looking at Objective 2 Graph 8.4 in Chapter 8 provides a visual representation of the importance of the factors to the respondents and the ratings of the various universities confirmed the target market's need, i.e. the importance of the factors exceeded that of any of the universities. UKZN was rated the highest for all the factors compared to the other universities. However the ratings of the other universities were very close. Thus UKZN should not be complacent but improve on the areas important to this target market. There is possible bias as respondents might have thought rating UKZN favourably might benefit them. There is also a possibility of familiarity bias. The University of Zululand was rated the second best. UKZN and the University of Zululand are both in KwaZulu-Natal and closest to the respondents. University of Zululand's ratings were followed by UCT. Fort Hare, Stellenbosch and Rhodes were close in their ratings and were given the lowest ratings compared to the other universities. These were among the ones that the respondents knew the least about. The curves for all the universities except for UKZN and University of Zululand took a similar shape. The biggest gap (.28) between UKZN's rating and the respondents's ideal position was with financial assistance. As explained already financial assistance is crucial for this target market because of their background. UKZN is really lagging behind in an important area for this target market. The second biggest gap (.25) between the respondents ideal position and UKZN's rating was to do with infrastructure of the university. This includes libraries, laboratories, computer labs, accommodation etc. which are also especially sought after by the target market because of the lack of these facilities and the associated experiences at their schools. These

two biggest gaps are important areas especially important for this target market because of their unique needs and therefore important to them in their selection of a university.

9.5 Objective 3

Assess whether the needs of access students are incorporated into the way the programme is positioned

The needs of this target market not being aligned to the positioning of the Foundation Programme were discussed under Objective 3. Some of their needs are the basic needs as described by Maslow (Kotler and Armstrong, 2008, p.143) which need to be met before higher order needs such as learning can take place.

“Positioning refers to both the place a product or brand occupies in customers’ minds relative to their needs and competing products or brands and to the marketer’s decision making intended to create such a position.” (Walker and Mullins, 2011, p.154). This discussion deals with both aspects of positioning from this definition: firstly position the Foundation Programme occupies in the customer’s mind relative to their needs and secondly in terms of the positioning strategy relative to their needs.

In terms of the Foundation programme, UKZN is not the only university that offers this route for students to enter science degrees. It competes with many other universities in South Africa, seven of which were included in this study. The comparison of UKZN to other universities in meeting the target market’s needs showed that UKZN was rated better on all the factors that respondents consider in the selection of a university. Besides the attributes or factors of a university that the target market would use to select a university they have other needs, which are in some cases more basic or personal. These needs are important to the target market and also considered in their decision making. Therefore it is important that UKZN is able to meet these needs in order to attract and satisfy its target market. The needs of this target market are discussed below in order of their importance to the respondents. The needs are also linked to the rating of the factors which is the position UKZN and more specifically the Foundation programme occupies in the minds of the target market.

The respondents’ most important need was for *financial assistance* with a mean score of 4.72. Majority of the respondents, rated UKZN favourably with a mean of 4.44 for the *financial*

assistance factor. This shows that the majority of the students view UKZN as being able to satisfy this need for them. However for some there is still room for improvement in this area as there is a gap of .28. Financial assistance is needed to cover tuition and accommodation expenses. It also provides for their basic need for food. Students in the access programme are highly vulnerable to food insecurity compared to mainstream students (Simpson *et al.*, 2008, p.15). The need for financial assistance is particularly important to this target market. As the results showed many of them come from homes where there is only one breadwinner and thus would be more dependant on financial assistance from the university. They have experienced high levels of poverty (Simpson *et al.*, 2008, p.15), and Science Foundation Programme, 1998, p.7). The worry of the financial uncertainty can have a negative impact on the target market (Schafer, 2006, cited in Robotham and Julian, 2006, p.111). Currently the Foundation Programme offers a limited number of financial aid and bursaries which are given to students on academic merit. However considering the unique needs of this target market this may not be sufficient. This could be seen as a weakness of the programme as students need to see their financial need taken care of in order to attain the other attributes of access and success that the programme emphasises.

I need the use of laboratories was the second important need for the target market with a mean score of 4.67. The need to use the laboratories is linked to the *infrastructure of the university* where respondents gave UKZN a positive rating with a mean of 4.50. This meant that for the majority of the respondents, they were satisfied with the facilities that UKZN has but there is still room for improvement to reach the ideal position as there is a gap of .17. Their study at UKZN would need to include sufficient time for them to do laboratory work to make up for this lack of exposure during their schooling and helping them feel prepared for university studies. During apartheid schools for blacks were deprived of resources (Fiske and Ladd, 2006, p.96). The service the Foundation Programme aims to provide its learners includes giving them necessary skills to do a science degree part of which is the use of laboratories which is included in the curriculum. So this need is acknowledged and provided for in the service offering. The Programme also is supported by the Faculty and university structure (Kioko, 2008) which allows students to make use of the well-equipped laboratories and technical staff etc.

I need the university to help me get job experience was the third most important need for the respondents with a mean score of 4.66. UKZN was given a positive rating with a mean of 4.43 for the factor: *studying at the university will lead me to employment*. Once again most students seem satisfied in this area. There is a smaller gap of .23 which indicates that there is still room for

improvement. The Foundation Programme does not make any special provision for this need. This is where it is needful for the university to have programmes and initiatives that link up with various industries and companies that would help graduates find employment. Finding good employment is what this target market is most interested in at the end of the day. They want to improve their situations at home and move away from the financial struggles that they have experienced.

I need the university to make me feel welcome was the fourth important need for the target market with a mean score of 4.55. Respondents' need to feel welcome is linked to the communication they receive from the university and the orientation programmes etc. *Communication from the university* was given a positive rating with a mean of 4.42 which showed that majority of the respondents believed that UKZN is satisfying this need. This had a smaller gap of .13 indicates better or closer performance of UKZN to the ideal. This need is included in the service offering as the programme runs its own orientation programme for the Foundation students.

The fifth most important need was *career advice* with a mean score of 4.51. This target market comes from homes where in most cases their parents were not able to complete their schooling or they are living with grandparents. Thus career guidance in the home might be very little or non-existent. Career advice, apart from all the other inadequacies, is also not provided at their schools. Also because of their financial circumstances the target market's access to sources of information such as the internet is limited and would impact on the career advice they receive. Thus career advice when they come to university is very important for this target market. One of the learning outcomes for the Foundation Programme is for "learners to have an awareness of career outcomes" (University of KwaZulu-Natal, 2004b, paragraph 2). This is achieved through the Counselling component of the Foundation programme. Students are exposed to the various career options available to them. This need can be linked to the factor: *quality education* which respondents rated positively with a mean of 4.52. For *quality education* UKZN exceeded the ideal position in terms of *career advice*. All the universities exceeded the ideal position in terms of *quality education*. Thus UKZN and the other universities were perceived to be more than satisfactory in this area. This is part of the supplementary service that supports the core service.

Accommodation close to the university was their sixth most important need with a mean score of 4.46. Distance from home, both near and far, were the only two factors that were not important to the respondents. It can be deduced that they prefer staying in university accommodation while they are studying. This could be a result of condition of their homes due to their financial circumstances.

Staying in university accommodation would mean that the target market has access to good facilities and it would save them travelling time. The respondents gave UKZN a positive rating with a mean of 4.50 for its *infrastructure*. Once again UKZN is perceived to be satisfactory in this area. However it should be remembered that the Foundation Programme has a limited number of residence places that it offers its students. It is not sufficient for the amount of students that need it. Associated with this need is also the ability to pay for it.

Safety and security was the seventh most important need for the respondents with a mean score of 4.41. The respondents gave UKZN a positive rating with a mean of 4.42 for this factor indicating that majority of them are satisfied with UKZN concerning security and UKZN is exceeding expectations in this area. Focus group participants felt that good security would help them to focus on their studies. Using Maslow's theory on the hierarchy of needs (Kotler and Armstrong, 2008, p.143), in order for access students to achieve higher order educational (self-actualisation) needs they must first satisfy basic physiological and safety needs before real learning can occur. Security is thus important and necessary in providing for the basic needs of the target market. As the Foundation Programme is supported by the wider university (Kioko, 2008) it makes use of the security provided by UKZN which covers the students and all the facilities they use.

The eighth most important need for the respondents was *to be motivated in their studies* with a mean score of 4.37. Focus group participants felt that studies at university might be difficult for them and they may not receive support from their families. Rather than just leaving them to 'swim on their own' participants wanted the institution to make an effort in motivating them to succeed. The motivation for the learners can come through *communication from the university* which they gave UKZN a positive rating with a mean of 4.42 and through *quality education* which they gave a positive rating with a mean of 4.52. Both these indicate that UKZN is exceeding expectations in this area and respondents are satisfied. Quality education would include the teaching staff who are in constant contact with the students. However there needs to be a balance with motivating the target market and allowing them to be independent as this was also important to them. The Foundation Programme provides for this need through its teaching staff, the Counselling components and through motivational talks by past students and leaders in the community.

I need mentors to guide me was the ninth most important need for the respondents with a mean score of 4.23. The university environment can be new and very different for the target market. They would be exposed to so many things which could be intimidating or overwhelming for them.

Having mentors to guide them can help ease the transition into university. Mentors can also be seen as a role model. The provision of mentors is part of the *quality education* that the university provides. UKZN was given a positive rating with a mean of 4.52 for *quality education*. Once again UKZN is exceeding expectations in this area. The programme employs senior students as mentors who also assist with extra help on Friday afternoons.

The tenth most important need was *a place to buy food* which had a mean score of 4.20. According to Maslow's hierarchy of needs food is a basic need that needs to be met before higher needs are met (Kotler and Armstrong, 2008, p.143). Simpson *et al.* (2008, p.15) in their study found that students in the access programme were even more vulnerable to food insecurity compared to other students. This need can be linked to the factor: *Infrastructure of the university* where the university can either have self-catering facilities and/or provision of meals as well as to the factor: *quality of life while studying* which could relate to places outside but near the university where the student can purchase meals from. UKZN was given a positive rating with means of 4.50 and 4.14 respectively. These indicate that there is room for UKZN to improve in these areas especially as this is a basic need which should be met to allow students to focus on their studies. This need is particularly important for access students who struggle to finances and support from families which would help them take care of this need. UKZN has cafeterias on campus which students can make use of. However this might not take care of all their meal needs due to the operating times. Its locations might also not be convenient.

The eleventh most important need was *health needs to be taken care of* with a mean score of 4.15. The need for health care falls under the physiological need as described by Maslow (Kotler and Armstrong, 2008, p.143) which should be met before higher needs can be met. Health care can also be linked to the factors: *Infrastructure of the university* and *quality of life while studying* which was rated positively with means of 4.50 and 4.14 respectively. UKZN is meeting expectations in this area. This includes for example the clinic services on campus or nearby health care facilities as well as gym or sporting facilities on campus that allows one to keep fit. These facilities need to be easily available in terms of location and times so that the target market can easily fit in into their schedule. This need is provided for by the use of the clinic and sporting facilities on campus.

Counselling advice had a mean score of 4.13. Counselling advice is needed for personal problems. Peacock (1995, p.4) in his evaluation of the Foundation programme found that the "integral counselling part of the programme has proved to be very valuable". This was also echoed by

Pavlich, Orkin and Richardson (1995, cited in Essack and Quayle, 2007, p.74) who stated that for an effective access programme one must “ensure that disadvantaged students are catered for in non-academic ways (in terms of financial aid, counselling services etc.)”. Counselling advice is thus an important need particularly for this target market. This need can be linked to the factor: *quality of life while studying* where UKZN was rated positively with a mean of 4.14 indicating UKZN is meeting this need.. Looking at the two factors that are related to these needs UKZN needs to make more provision in meeting them. The Foundation Programme employs its own counsellors so students go to them for individual counselling.

Some of the needs discussed above form part of the physiological and safety needs which are the more basic needs as described by Maslow in his Hierarchy of Needs (Kotler and Armstrong, 2008, p.143). These needs should be met before the higher needs, i.e. the social, esteem and self-actualisation needs can be met. It is crucial that management is aware of them and that these needs are included in the service offering. If the more basic physiological and safety needs are not met the higher needs such as learning, completing the degree and becoming a successful graduate with a successful career cannot be achieved. Both UKZN and the target market seek this outcome. This target market, in particular, because of its background has many basic needs that should be considered in the marketing strategy of the Foundation programme.

Although UKZN is positioned in a positive light for most the needs discussed above there are some areas where it is lacking. This is especially in the area of *financial assistance* which had the biggest gap of .28 especially considering the needs and background of the target market as discussed earlier. Another area for improvements is *the need to get job experience* (gap of .23). This target market is looking for more than the access the programme provides, which is its unique selling proposition. As was seen in the focus groups and the questionnaires this target market has a great concern about finances and improving their home conditions. This related to them getting job experience which will make them more employable. Other areas of needs that need improvement are the *use of laboratories* (gap.17), the *need for the university to make me feel welcome* (gap .13) and the *need for a place to buy food* (gap.05).

The needs of the target market as discussed above can be looked at in relation to Lovelock’s concept of the “flower of Service” (Lovelock, 1996, p.341). In this study the main or core service offering is the education being offered. The needs discussed above form part of the supplementary service or the petals which support and add value to the core service offering and the whole learning

experience for the target market. Lovelock's consultation petal applied here includes the need for career advice, counselling advice, motivation, job experience and the use of laboratories (Lovelock, 1996, p.341). The hospitality petal (Lovelock, 1996, p.341) includes the need for mentors, making one feel welcome, health care, a place to buy food and accommodation close to the university. Lastly the payment petal (Lovelock, 1996, p.341) includes the need for financial assistance. So besides just focusing on the quality education factor which is the core service the target market is looking for more, i.e. 'the additional extras' in their choice of university. For UKZN to stand out among its competitors it needs to make provision for meeting these needs and cannot just rely on improving the quality of the education offered. UKZN also needs to communicate what it offers in terms of these needs to help the target market see how they are specifically being catered for. As seen in the discussion above for all of the needs UKZN needs to make improvements to improve its position with this target market. It will help make the service offering of a Foundation programme more 'beautiful' to its target market.

9.5.1 Conclusion for Objective 3

The image the CSA would like its target market to have of the Foundation programme is one of success according to the CSA Head (Kioko, 2008). Although in its rating on the various attributes UKZN had mostly positive responses from the respondents and stands out compared to the other institutions, it is not completely aligned to the position of where the needs of the target market are or what attributes they are looking for in a university. There are particular areas such as financial assistance, getting job experience and using laboratories where there is a bigger gap between the respondents' need and UKZN's rating on these factors. These are important needs of the target market and unique to them because of their background. These are areas of concern that UKZN should address. UKZN's marketing strategy, particularly for its Foundation programme in science, needs to take cognisance of this and re-position itself.

9.6 Objective 4

Identify the perceptions of the target market on the CSA's marketing communication

Objective 4 examined the perceptions of the target market of the CSA's marketing strategies.

The university wide advertising for UKZN is done through the television, radio, newspapers, posters, Central Applications office (CAO) handbook, university prospectus and other events such as Open Days, Science Festivals etc. This would include information on the various qualifications

offered which includes the Foundation programme. The target market is aware of UKZN as a university and more familiar with it than the competing institutions. The results showed that there were more “I don’t know” or no response for the other institutions than UKZN in the ratings of the various institutions included in this study. The results also showed that 69% of the respondents were not aware of any Access Programmes in Science at other Universities. This can be used to the advantage of UKZN and the CSA to penetrate the market first. It shows that the promotion strategies of other institutions are also not fully reaching this target market.

The CSA also does its own advertising which mainly consists of past and current students going out and doing presentations at disadvantaged schools close to their homes during the winter vacation. In some cases especially with events such as career days and community events staff members also conduct presentations at schools. The CSA in addition has employed a marketing assistant to also do presentations at various schools in KwaZulu-Natal. The majority of the respondents, i.e. 66% were not aware of the Foundation Programme at UKZN. Thus the marketing communication done for the access programme is not reaching a large proportion of its target market as the respondents have indicated. The advertising done by the CSA has not been very effective as only 28% of the respondents were aware of its advertising. This indicates that the CSA has not reached much of its target market.

Many of the respondents are not aware that the access option could help them gain entry into a science degree. Career guidance provides a good channel for information to go out to the target market. As discussed above for this target market the teacher was the second most influential person in their decision-making of which university to attend. The first most influential person was their parents. Teachers, especially those involved in teaching Maths and Science, can relay this information to the target market. This career guidance would need to be included with the science subject matter as part of what the science teachers do with the learners as a separate session for career guidance currently does not exist.

For each of the eight suggested forms of advertising the majority of the respondents agreed that these were appropriate for the CSA to use in reaching them. According to the students responses “sending a staff member to the school” would be the most effective with 84% of the respondents agreeing. This was closely followed by advertising on television (83% agreed), showing them successful graduates (83% agreed), sending CSA students (from their community) to visit the school and to do a presentation about the access programmes (82% agreed) and advertising in

newspapers (81% agreed). Cellphone advertising was not as highly recommended as the other forms of advertising with 70% of the respondents agreeing. Other suggestions, which were not very significant, included advertising at school, on facebook, on mixit, via email, in a magazine and organising career guidance.

Majority, i.e. 66%, of the respondents were not aware of the Foundation Programme at the University of KwaZulu-Natal. This indicates that the CSA's marketing communication is not reaching all of its target market. On the other hand 69% of the respondents were not aware of any Access Programmes in Science at other Universities either. This is positive for UKZN because it means that their competitors have not infiltrated their target market either.

There is not enough awareness of access programmes in general and in particular the access programme at UKZN. However the CSA is using an appropriate strategy, i.e. sending out staff or students to schools, but this form of marketing communication isn't reaching a substantial portion of the target market. Although advertising through television had a high response in terms of appropriateness for the target market this would need to be assessed with information on how many homes actually have television. The same would apply for advertising in newspapers. Information is needed on how many of the target market actually have access and read newspapers. With such financial difficulties it could mean that television and newspapers are seen as luxury items. The most appropriate marketing communication for this target market seems to include people, i.e. staff, students or successful graduates that come into contact with them. The target market finds it easier to relate to university students and trust their opinion. They feel that students would not lie to them and therefore seek their opinion. The use of people however is more labour intensive and time consuming but it helps the target market and provides an opportunity for the communication to be two way, i.e. the target market will also be able to ask questions.

9.6.1 Conclusion for Objective 4

The findings showed that there is not enough awareness of access programmes in general and in particular the access programme at UKZN. However the CSA is using an appropriate strategy, i.e. sending out staff or students to schools. But this form of advertising isn't reaching a substantial portion of the target market.

9.7 Objective 5

Examine the effect of Financial Aid, or the lack thereof, on the perceptions of the target market

Objective 5 examined the effect of Financial Aid, or the lack thereof, on the perceptions of the target market.

Financial assistance is a real concern for this target market and was one of the top most important factors in their selection of a university. 92% of the respondents agreed that this was important to them. Similarly the focus group participants continually mentioned their difficult financial circumstances and the costs of studying at university. Financial assistance was indeed important to them. Whilst this aspect is so important for the target market only 69% of the respondents rated UKZN as good and excellent for the factor: *financial assistance (loans, bursaries or cost of fees*. This shows that UKZN is not fully satisfying the target market in terms of the financial assistance it offers. There is room for improvement in this area.

As discussed previously financial assistance for the Foundation students at UKZN has changed over the years. In the initial five years of the programme all Foundation students were given full bursaries to cover the costs of their studies and accommodation. Following this financial aid packages, which are loans that would need to be paid back, were given to all Foundation students who needed and qualified for it. Subsequently this has been replaced with a limited number of financial aid packages which are awarded on academic merit. As a result of the limited financial assistance a number of accepted students decline the offer of a place on the programme whilst others take a chance and register hoping to find some sort of financial assistance during the year and sometimes drop out at a later stage when this does not materialise.

According to Peacock (1995, p.4) “the guarantee of full funding for SFP students has been crucial in making the programme not only acceptable to students but positively sought-after.” The target market for the Foundation programme experience extreme economic difficulties with shortages of food, water, housing and transport (Science Foundation Programme, 1998, p.7). They are therefore very dependent on some sort of financial assistance to study at university. Also contributing to this is the fact that no one or only one parent in the household is the breadwinner this means that these students cannot depend on their families for financial support. They come from homes where even their basic needs are sometimes not met.

Students from the target market also come from disadvantaged schools where they either pay no fees or a minimal amount of fees. This confirms the economic difficulties the target market faces.

In the open ended question only one respondent felt that UKZN had affordable fees (1 response) while six felt that it provides financial assistance/loans/bursaries to poor students (9 responses). Once again this shows that UKZN is not outstanding in the area of financial assistance for the target market.

9.7.1 Conclusion for Objective 5

Financial assistance is a very important aspect for this target market. It is a factor that they would definitely use in selecting a university. Although UKZN is satisfying this need to a certain degree there is still room for improvement. There is still a gap between UKZN's rating and the target market's need. UKZN needs to take cognisance of the fact that these students come from background which cannot support them financially.

9.8 Objective 6

Evaluate the effect of the merger on the perceptions of the target market

Objective 6 evaluated the effect of the merger of the Universities of Natal and Durban-Westville on the perceptions of the target market.

For the majority of the respondents, i.e. 79%, the merger did not affect their decision of which university to attend. 69% of them were not even aware of the merger between the University of Natal and the University of Durban Westville. In the few comments made by the respondents, the merger was mostly seen in a positive light, increasing the standard of education and it was now more conveniently located. The respondents did not mention any negative impact as a result of the merger. The merger would have also taken place when these respondents would have been in primary school.

Since merger in 2004 the CSA was offered both on the Pietermaritzburg and Westville campuses. This is also when the enrolment targets were not being met. Prior to the merger the Foundation programme was only offered on the Pietermaritzburg campus and the Augmented Programme was only offered on the Westville campus. There was no big difference from the respondents in terms which campus they would like to study at. 45% of the respondents preferred to study in

Pietermaritzburg while 40% preferred to study in Westville. It would seem that the merger did not have any negative influence on the perception of the target market. All that has happened is that the pool of students is now being shared across the campuses for the Foundation programme. Since the merger the overall enrolment target has increased for the Foundation Programme and is 310 of which 120 are for the Pietermaritzburg campus.

9.8.1 Conclusion for Objective 6

The merger did not have a negative influence on the perceptions of this target market on their choice of which university to attend but rather on the distribution of the students between the campuses. Since the merger what has happened is that the pool of applicants is being shared across the two centres of the CSA.

9.9 Objective 7

Critically evaluate the impact of the introduction of the Augmented programme on the numbers

Objective 7 evaluated the impact of the introduction of the Augmented programme on the enrolment targets being met.

As the results show, the majority of the respondents, i.e. 65% were not aware of the Augmented programme at the University of KwaZulu-Natal. The results showed that the majority of the respondents were not aware of any access programmes either at the University of KwaZulu-Natal or any other university. These results imply that the marketing strategies of the CSA with regards to the Augmented programme are poor. They are not reaching the majority of the respondents, i.e. the 65%.

Based on matric results alone the 'better quality' students, i.e. the top band of the CSA applicants, have been put into the Augmented programme. Students are ranked according to their matric results and all those meeting the CSA selection criteria are first put into the Augmented programme starting from the highest marks then the remaining students are placed into the Foundation Programme. In reference to the enrolment targets Graph 1.2 in the literature review, one can see that the introduction of the Augmented programme, from 2007, did not further exacerbate the problem of the unmet enrolment targets. When looking at Graph 1.2 one can see that since 2004 the Foundation Programme was already on a downward decline and actually increased in 2008.

From the points mentioned above it can be deduced that the Augmented Programme has not affected the enrolment targets of the Foundation Programme, rather it has affected the “quality” of students in the Foundation programme. If the Augmented Programme was not introduced the Foundation Programme would be taking in students with higher matric scores.

The findings also showed that there is not enough awareness of access programmes in general and in particular the access programme at UKZN. The CSA is using an appropriate strategy, i.e. sending out staff or students to schools, but this form of marketing communication isn’t reaching a substantial portion of the target market.

9.9.1 Conclusion for Objective 7

Since the merger what has happened is that the pool of applicants is being shared across the two centres of the CSA. The Augmented Programme has also not affected the enrolment targets of the Foundation Programme, rather it has affected the “quality” of students in the Foundation programme. If the Augmented Programme was not introduced the Foundation Programme would be taking in students with higher matric scores.

9.10 Conclusion

Universities, like many other service organisations are operating in a competitive environment aiming to attract the best students. It is therefore important for them to understand how they are positioned in the minds of their target market. Positioning is to do with what picture the consumer has of a product or service (Walker *et al.*, 2008, p.150).

The aim of this study was to help understand why the Foundation Programme at the University of KwaZulu-Natal was not meeting its enrolment targets in recent years on the Pietermaritzburg campus. The final outcome of this research was that the overall positioning of Foundation programme is not aligned to the needs of the target market. They have unique needs that are not being catered for. UKZN is seen very positively and is believed to be offering a quality education with successful graduates. UKZN was also given the highest rating compared to its competing universities. However there are still gaps between where UKZN is in the mind of its target market and where their needs are. Infrastructure of the academic facilities, financial assistance and vocation were found to be the top three factors of importance to the target market. The biggest gap was in the area of financial assistance and this was followed by infrastructure of the university. Both these factors are of particular importance to this target market because of their disadvantaged background.

These are the factors that they would use to select a university and a Foundation Programme. The findings also showed that there is not enough awareness of access programmes in general and in particular the access programme at UKZN. The CSA's marketing communication isn't reaching a substantial portion of the target market. The merger did not have any negative effect on the target market's choice of which university to attend. However since the merger what has happened is that the pool of applicants is being shared across the two centres of the CSA. The Augmented Programme has also not affected the enrolment targets of the Foundation Programme, rather it has affected the 'quality' of students in the Foundation Programme. If the Augmented Programme was not introduced the Foundation Programme would be taking in students with higher matric scores.

This chapter provided a detailed discussion of the findings for this study and was structured in order of the objectives set to answer the research question. The researcher sought to apply the triangulation method by bringing together the literature, findings from Stage 1, i.e. the qualitative focus groups and findings from Stage 2, i.e. the quantitative research questionnaire in this discussion. The next chapter includes recommendations for these findings.

Chapter 10: Recommendations

10.1 Introduction

The aim of this study was to help understand why the Foundation Programme at the University of KwaZulu-Natal was not meeting its enrolment targets over a 5-year period on the Pietermaritzburg campus. The final outcome of this research was that the overall positioning of Foundation programme is not aligned to the needs of the target market. They have unique needs that are not being catered for. Positioning deals with the picture of the service offering in the consumer's mind (Walker, Mullins and Larreche, 2008, p.150).

The findings identified factors which are important to this target market in their selection of which university to attend. Potential applicants are faced with a wide range of tertiary institutions and qualifications to choose from. According to James *et al.* (1999, cited in Maringe, 2006, p.466) "higher education environments in most developing countries have become competitive and institutions increasingly have to compete for students in recruitment markets. Although UKZN was the closest to where the target market's needs were in terms of these factors there was still room for them to improve as there was a gap between their rating and the target market's needs. UKZN needs to exceed the target market's expectations. According to Engel *et al.*, (1995, p.13), successful marketing strategies can impact on consumers' motivation and behaviour if the product or service offered is designed to meet their needs and expectations. "Four major psychological factors, i.e. motivation, perception, learning and beliefs and attitudes, influence a person's buying choices (Kotler and Armstrong, 2004, p.191).

To improve the position of the Foundation Programme in the minds of its target market recommendations are made in this chapter in terms of the positioning strategy which includes the marketing mix. These recommendations are made to help the CSA and UKZN be more aligned to where the target market needs are. One of UKZN's strategic goal is to be the 'University of choice for students' (University of KwaZulu-Natal, 2004b) and this can be achieved for the target market of the Foundation Programme by aligning their position to the target market's needs. The target market needs to see UKZN as standing out amongst other universities in terms of meeting their unique needs as discussed in earlier chapters.

10.2 Recommendations in terms of the positioning strategy

As can be seen in perceptual maps and value curve presented in this study UKZN is closest to the target market needs and ideals in the selection of a university. The target market is also most aware of UKZN in terms of its offerings when compared to the competing universities. It is not necessary for the Foundation Programme at UKZN to re-position itself. Repositioning a product refers to ‘a deliberate decision to significantly alter the way the market views a product’ (Hawkins *et al.*, 2007, p.350). The results showed however that there isn’t enough awareness of the programme. The CSA needs to work on improving its current position with its target market.

A company can gain competitive advantage by positioning itself as “providing superior value either through lower prices or by providing more benefits that justify higher prices” (Kotler and Armstrong, 2004, p.259) thus differentiating the firm from its competitors.

The CSA can distinguish itself from its competitors by applying some of the following criteria as advised by Kotler and Armstrong (2004, p.262):

- *Affordable*: Buyers can afford to pay for the difference.
- *Communicable*: The difference is communicable and visible to buyers.
- *Important*: The difference delivers a highly valued benefit to target buyers.

In making the Foundation Programme affordable particularly for this target market, CSA must be able to offer financial assistance either in the form of a bursary or loan. This was one of the most important needs to them. The way UKZN is meeting this target market needs should be consistently communicated to them. Lastly the CSA offers a very valuable benefit for this target market. They want to have successful careers. They need to be constantly reminded that it is possible to achieve this through the Foundation Programme.

10.3 Positioning Statement for the CSA

The positioning statement or value proposition recommended for the CSA:

The Foundation Programme at UKZN offers **access** to science degrees for students from disadvantaged schools, with the support of financial assistance. Special focus is given for students to gain access to and experience within laboratories, libraries etc. of the university.

The above words were selected following the guidelines of what the positioning statement should include, i.e. the target market, the benefits offered and the price range (Walker and Mullins, 2011, p.169). The position should match what is important to the target market and the organisation is

good at or has (Walker and Mullins , 2011, p.169). “Once the company has chosen a position, it must take strong steps to deliver and communicate the desired position to target consumers” (Kotler and Armstrong, 2004, 267). The company, its staff, its policies and image all need to convey a consistent message which reflects the desired position (McDonald and Payne, 1996, p.102). Recommendations for these are discussed below. Kotler and Armstrong (2004, p.267) advise that a company must take care to maintain the established position through consistent performance and communication. The company should also closely monitor and adapt the position over time to match changes in consumers’ needs and competitors strategies (Kotler and Armstrong, 2004, p.268).

10.4 Recommendation in terms of services mix

“The designing of the marketing mix, i.e. the product, price, place and promotion, involves working out the tactical details of the positioning strategy” (Kotler and Armstrong, 2004, p.267). Kotler and Armstrong (2004, p.56) state that the marketing mix is the term traditionally used to describe a specific set of tools available to managers to help them shape the offer they present to consumers. According to Payne (1993, p.22) the task of the manager in developing the marketing programme is to assemble the elements of a marketing mix to ensure the best match between the internal capabilities of the company and the external market environment. A key issue in the marketing programme is the recognition that the elements of the marketing mix are largely controllable by managers within the organisation and that the market forces in the external environment are to a large extent uncontrollable (Payne, 1993, p.22). Recommendations to improve the positioning of the Foundation Programme at UKZN have been made in terms of the service mix.

10.4.1 Product

Products, according to Palmer (2011, p.36) and McColl *et al.*, (1998, p.19), are the means by which organisations seek to satisfy consumer needs. A product in this sense is anything that the organisation offers to potential customers which may satisfy a need, whether it is tangible or intangible. Recommendations can be made to improve the core aspect of the service offering (Lovelock, 1996, p.339) which is the quality education offered to Foundation students. Recommendations can also be made to improve the ‘petals’ or supplementary services (Lovelock, 1996, p.341) surrounding the core product, i.e. the important factors and the needs of the target market. By improving the core product and the ‘petals’ or supplementary services offered the CSA will improve the position it occupies in the minds of its target market.

Employment is really the ‘bottom-line’ for this target market and is the ‘petal’ in this service offering. The target market desperately wants to change the financial plight of themselves and their family and see getting into successful employment as a way out of those circumstances. Employability also shows a concern for long-term need fulfilment and not just the short term aspects of being a student (Bonnema and Van der Walt, 2008, p.319). For this need UKZN needs to intervene in helping find successful employment for this target market. This can be done through graduate recruitment programmes or through employment that is attached to bursaries. Often getting into the job market is difficult and it would help the target market if assistance is given in obtaining their first job. This will also attempt to satisfy the target market’s *need for job experience*.

Security or feeling safe is a basic need and is another ‘petal’ in this service offering. Abraham Maslow’s in his theory on the Hierarchy of Needs states that basic physiological and safety needs must first be met in order to achieve the higher needs, i.e. social, esteem and self-actualisation needs (Kotler and Armstrong, 2008, p.143). This means that higher needs such as learning can’t take place if the security need is not met. A good place to start with to improve this area is by getting information from the security department on campus to help identify problem areas with the security. The staff and students of the university could also complete simple surveys that to help identify problem areas. UKZN also needs to assess the safety if students need to work in the libraries and computer labs at night, i.e. is there sufficient lighting, cameras and security guards to allow students to do this without fear of being harmed. The safety of the students in and around the university campus should also be addressed. If there are common incidents just outside of the campus this could instil fear into potential applicants about their safety whilst being at university. In order to improve the security the university also needs to maintain strict access control so that criminals are kept off the campus.

Independent refers to the university allowing the student to be independent. Although this target market would need a lot of support and understanding they also need to be given room to allow them to be independent. This can be achieved by ensuring that there is a balance between the support given and the space they need to learn new skills of being independent. The staff in the CSA constantly needs to ask themselves if there is this balance.

Another important factor in the selection of a university was *sport*. According to Bonnema and Van der Walt (2008, p.321) sporting also includes social aspects such as winning, being part of a team, and meeting people. UKZN needs to ensure that it is providing sufficient opportunities for students

to participate in sport. There needs to be a variety of sporting activities offered for everyone to find something they like. Arranging tournaments can help encourage students to participate in the sporting events. The sporting facilities available need to be made known to the target market.

Quality of life while studying refers to the university atmosphere, entertainment or being with friends while studying at the same university. The surroundings and available facilities becomes important as students will spend a few years of their lives living in the area (Chapman, 1981, Coccari and Javalgi, 1995 cited in Veloutsou, 2004, p.162). To help give these students a better quality of life while they are studying at university UKZN needs to provide opportunities where they will be able to socialise, enjoy the surroundings and learn or enjoy some performing or visual form of art. The university's orientation committee is where socialising begins but there needs to be social clubs where they can continue to make friends and be with other students. Some students might prefer clubbing and dancing while others might prefer to play board games etc. These clubs can also offer the tours of outdoor adventures such as hiking. Students can also be given the opportunity to learn how to play musical instruments or learn about visual art such as painting etc. All of these options need to be balanced with the time needed for studying as it should take them away from studying but rather provide a break for them. A maximum of two hours per week would be sufficient time to enjoy these activities.

This target market have little or no *career advice* from home as many of the parents or grandparents could not afford to complete their schooling. They also come from schools where no *career advice* is offered. *Career advice* is part of the supplementary service (Lovelock, 1996, p.341) offered by the CSA, the core being the quality education it offers. Career advice is already included in the Counselling component of the Foundation programme. As the CSA is already addressing this need no recommendation is made to them. However it is recommended that the Department of Education re-evaluate its decision of removing career guidance from the school syllabus at school level. It needs to be included as a non-examinable but compulsory subject to help learners gain as much information early on about the career options available.

Counselling advice is needed for personal problems. Peacock (1995, p.4) in his evaluation of the Foundation programme found that the "integral counselling part of the programme has proved to be very valuable". This was also echoed by Pavlich, Orkin and Richardson (1995, cited in Essack and Quayle, 2007, p.74) who stated that for an effective access programme one must "ensure that disadvantaged students are catered for in non-academic ways (in terms of financial aid, counselling

services etc.)". Counselling advice is part of the supplementary service (Lovelock, 1996, p.341) offered to this target market. The CSA is already making provision for this by having counsellors that can advise students. CSA needs to assess if the number of counsellors are sufficient to meet the demands of the students in this area. They also need to assess if the students are able to fit this service in with their busy timetable.

The sixth most important need for the respondents was *to be motivated in their studies*. Motivating this target market is part of the supplementary service (Lovelock, 1996, p.341) offered to them, i.e. the additional benefits that add value. To improve this area firstly the staff in the Foundation Programme need to be given training on needs of access students. They need to understand why they need special motivation. Secondly the CSA can get past students and graduates of the programme to talk to students and share their experience and growth. Thirdly the CSA can provide statistics and stories of students who have succeeded. The message through all of this needs to be that they too can succeed.

The introduction of the Augmented Programme on the Pietermaritzburg campus has not affected the enrolment targets of the Foundation Programme, rather it has affected the "quality" of students in the Foundation programme. If the Augmented Programme was not introduced the Foundation Programme would be taking in students with higher matric scores. It is recommended that the CSA in conjunction with the mainstream policy makers re-visit the minimum requirements for the programme. It might be necessary to increase the band upwards, i.e. to be able to select students with higher matric scores to improve the quality of students in the Foundation Programme.

10.4.2 Price

Price decisions are strategic and tactical and concern the general level of prices to be charged, discount structures, terms of payment and the extent to which price discrimination between different groups of customers is to take place (McColl *et al.*, 1998, p.19). Zeithaml and Bitner (2003, p.25) state that pricing becomes very complex in services where unit costs needed to calculate prices may be difficult to determine, and where the customer frequently uses price as a cue to quality. Given the background of this target market and the financial difficulties they experience pricing decisions has a huge impact on them. This research identified financial assistance as the second most important factor for this target market in their selection of a university. This was also the area with the biggest gap between the target market's need and their rating of UKZN. It is crucial that the pricing decisions of the CSA fit in with the needs of this target market.

Financial assistance from the university, i.e. loans or bursaries or low cost of fees was the second most important factors to this target market. As previous discussion showed this target market has a background that this marked by financial difficulties (Brown, 2006, p.512, Grayson, 1996, p.993 and Science Foundation Programme, 1998, p.7). Majority of these students cannot look to their families for support in this area. The results of this study showed that majority are living at home with just one parent and the majority come from homes where neither their parents nor guardian works. There needs to be a two fold approach to address this need for this target market. Firstly the Department of Education needs to make special provision for funding for Foundation Programmes as part of their access policy. They can also provide special funding for access programme which includes bursaries or loans for the students in the Foundation programme. Alternatively partial funding can be given to cover the costs of the studying whilst the university assists with the balance. According to De Villiers and Steyn (2006, p.36) one of the challenges facing Higher Education institutions internationally is the pressure from the decrease in public funding. The trend of students having to pay more out of their own pockets for the costs of higher education is pointed out by De Villiers and Steyn (2006, p.38) who also suggest that a scheme is therefore needed to assist the poor. Thus more help is needed from government as they are trying to redress this problem in South Africa but not doing so in a holistic manner. Secondly the CSA needs to seek bursaries for access from various companies. Without financial assistance the Foundation Programme at UKZN is just an attractive option dangled in front of the target market but one that they cannot attain. Pavlich, Orkin and Richardson (1995, cited in Essack and Quayle, 2007, p.74) argues that the financial aid is one of the factors that contribute towards the effectiveness of access programmes and should be provided for students from disadvantaged backgrounds. The CSA needs to move back to the provision of financial assistance to cover all the associated costs with studying in the Foundation Programme for all its students. The provision of financial assistance for all students should also be communicated to the target market.

10.4.3 Place

According to McColl *et al.* (1998, 20), place decisions refer to the distribution and the availability of products in terms of location. This research showed that distance from home, both near and far, were the only two factors that were not important to the respondents. Thus it can be deduced that they prefer staying in university accommodation while they are studying.

Accommodation close to the university another important need for this target market. As distance from home, both near and far, were the only two factors that were not important to the respondents it can be deduced that they prefer staying in university accommodation while they are studying. Also they come from homes that might not be suitable for studying because of the financial difficulties they face. In trying to address the injustices of the past, the Department of Education needs to cater for access students fully, i.e. in terms of funding and accommodation for them. They need to assist UKZN financially so that they can have sufficient accommodation for access students. UKZN needs to set aside a specific number of residence spaces for students in the Foundation Programme.

Another important need was *a place to buy food*. According to Maslow's hierarchy of needs food is a basic need that needs to be met before higher needs are met (Kotler and Armstrong, 2008, p.143). Simpson, Munro and Quayle (2008, p.15) in their study found that students in the access programme were even more vulnerable to food insecurity compared to other students. Students in the Foundation Programme might not have the time to prepare meals as their timetable is very full. UKZN needs to provide places to purchase cooked, nutritious and cheap meals on campus that will help them fulfil this basic need.

In terms of the need for *health care* UKZN is providing for this through the campus clinics. It needs to make potential students aware of this provision for them.

10.4.4 Promotion

The four elements of promotion include advertising, sales promotion, public relations and personal selling (McColl *et al.*, 1998, p.19). According to Palmer (2011, p.7) and McColl *et al.* (1998, p.20) the promotion of services often needs to place a particular emphasis on increasing the apparent tangibility of a service. The target market's perception of the CSA's marketing communication was one of the objectives set for this study. The results showed that there isn't enough awareness of the Foundation Programme at UKZN.

The results of this study identified various ways of advertising the Foundation Programme. The CSA needs to have multi-prong approach for its advertising. Firstly in advertising to the potential student themselves the CSA should continue to use its existing strategy, i.e. continue sending its staff or students to visit schools and conduct presentations. Because of lack of access to many

amenities for the target market this is the best way of reaching them. Having a 'face' there helps make it a two way communication. The target market will have an opportunity to ask questions.

Secondly the advertising should also be directed towards the parents as they are the most influential in the target market's selection of a university. As the parents will guide their decision it will help them to have background knowledge of the CSA. For parents the advertising needs to be done in media that they have access to. Posters especially in the community would be useful for parents. In addition to directing the advertising to parents friends should also be included as they are influential in cases where the guardian is the breadwinner.

Thirdly the CSA's advertising should also be directed towards teachers as they are the second most influencing people in the target market's decision of which university to attend. In particular teachers who teach Mathematics and Sciences need to be targeted.

In its advertising the CSA needs to make the target market aware of how it is catering for their important needs, i.e. the factors that are important to them in their selection of a university. There should therefore be a strong focus of the financial assistance, bursaries or loans, given as this is a very important concern for this target market. The target market should also be made aware of the infrastructure of UKZN and in particular laboratories and libraries etc. Success stories of graduates of top companies where they speak about the quality of the Foundation students who are now their employees need to be included to help them see the success of the Foundation Programme. It would be helpful if the success stories can be shown at the school visits. This would mean that CSA would need to have portable televisions or laptops and portable projectors to do this. By focusing on the factors important to this target market in the advertising the CSA will be able to close the gap between the target market's need and their rating of UKZN.

The findings also showed that the target market is aware of UKZN as a university and is more familiar with it than the competing institutions. There were more 'I don't know' responses for the other institutions than UKZN. The advertising done for the CSA at UKZN should be focused on the KwaZulu province. The target market in KZN views UKZN as the top university. It needs to maintain this image in their minds.

The target market did not know about access programmes at other universities. This can be used to the advantage of UKZN and the CSA to penetrate the market first. The majority of the respondents

were also not aware of the Foundation Programme at UKZN. They are not aware that the access option could help them gain entry into a science degree. This means that the advertising strategies of the CSA are not being very effective. The CSA needs to create more awareness about the Foundation Programme especially in KwaZulu-Natal. The existing advertising which is focused on reaching schools is only reaching a small amount of the target market. To improve the awareness more people will need to be employed to visit schools. This would need to be a full time job for at least two marketing assistants as there are enough of schools to reach in KZN. In addition the student recruitment programme needs to be expanded. "Promotional material provided to potential students must have clear and concise information in relation to the courses available, the entry requirements and the availability of specialist programmes" Joseph and Joseph (1998, p.95). Training and guidance should also be given to students and staff who conduct presentations about the Foundation Programme.

Although the majority of the respondents agreed that advertising through television was appropriate, it first needs to be established how many of them actually have access to television. They also agreed that advertising in newspapers was appropriate. Information is needed on how many actually have access to and read newspapers. These forms of advertising would be especially appropriate in targeting the parents.

Lastly it is also recommended that the Department of Education staff also assists in promoting the Foundation programme as this is an area that they are trying to address. This can be done by them sending promotional materials about the Foundation programmes to their schools. They can also inform teachers and learners about this option through the subject advisors that goes out to schools. The Department of Education also needs to re-visit its policy on career guidance in schools. Schools and especially those within this target market have little or no career guidance. Career guidance needs to be included as a non-examinable but compulsory subject to help learners gain as much information early on about the career options available.

The merging of the Universities of KwaZulu-Natal and Durban Westville did not have a major or a negative impact on the target market. However what has happened is that the pool of students is now being shared across campus for the Foundation programme. As the overall enrolment targets for the CSA have increased the advertising efforts also need to increase to attract a larger pool of students.

Reputation of the institution was another important factor in their selection of a university. The reputation of the institution speaks of the performance of the institution, quality, history, legitimacy, staff and its general management. Beside just hoping that all the efforts made at UKZN helps the target market see that it has a good reputation, UKZN needs to continually send out positive information and messages about itself. Otherwise they will be relying on the negative publicity it gets. Addressing issues of crime, staff and student satisfaction can also help create a good reputation and avoid negative publicity. The use successful graduates who are able to speak positively of UKZN can be used in the various forms of media. Top companies who speak highly of UKZN's graduates can also be used in the various media used for advertising to help create a good reputation.

Besides just informing the target market of the access programme and of UKZN they need to get specific information about the *careers and qualifications* offered at UKZN. They are not just interested in being a university student or get just any qualification. They are sure of what they want to study. They need to be made aware through the CSA's advertising that the qualification they want to do is offered at UKZN and that the Foundation programme provides a route for them to get there. There is also a particular need to increase the number of mathematics and science graduates in South Africa (Department of Education, 2001, p.12, Scott, Yield and Hendry, 2007, p.11 and Steyn and Maree, 2002, p.47). This should be factored in, in the information given about the careers and qualifications offered.

The CSA should also aim to be the "quality leader", a positioning strategy suggested by Kosnik (1989 cited in McDonald and Payne, 1996, p.102) which means that they offer "the most reliable products/services" (Kosnik, 1989 cited in McDonald and Payne, 1996, p.102). This can be achieved by making the target market aware of its successful graduates. The Foundation Programme at UKZN should be the place, in their minds, that they believe would give them the best quality education to achieve their career goals. *Graduates* refer to the respondents seeing successful graduates of the university, i.e. they have completed their qualifications and are employed in good careers. Having successful graduates can be a strength and achievement of an institution which can separate itself from others. This is important for its positioning and can help create the "distinctiveness" (McDonald and Payne, 1996, p.97) it needs for a service. There is also a need in South Africa to increase the number of science graduates (Scott, Yield and Hendry, 2007, p.11, National Assessment of Educational Progress, 2004 cited in Jordan *et al.*, 2006, p.153 and Department of Education, 2001, p.12). Graduates may not have the time to even be partially

involved in the CSA's advertising initiatives but it will help the target market if they could see examples of students that have gone through the Foundation Programme and are in successful careers. Their 'stories' could be recorded and shown to the target market when a student or staff goes out to visit schools. As many of the schools lack equipment the advertising initiatives need to include portable television sets for them to view this. The stories of successful graduates can also be included in the advertising materials. The university's Alumni Office can also assist by providing information on the Foundation graduates. Posters of successful graduates can also be put up in their community to help motivate the target market. Also the use of "testimonials of employers can attest to the quality of graduates" (Joseph and Joseph, 1998, p.95).

The ratings given by the Department of Education and other leading education organisations to UKZN and the Foundation Programmes compared to the top institutions should be made known to the target market for them to be aware of the quality of education being offered.

Positive feedback from students attending that university is important as the target market might find it easier to relate to them. They are already experiencing the journey that a prospective student is contemplating. This feedback is considered as word of mouth advertising and can create positive or negative opinions about the Foundation Programme at UKZN. As the target market trusts this form of advertising it must be taken advantage of. To improve this area UKZN needs to ensure that its students are satisfied with the quality of service they are receiving. If they feel good about the university they will make positive comments about it. The students that conduct presentations for the CSA also needs to be given training about how and what they say to the target market.

10.4.5 People

According to Palmer (2011, p.37) and McColl *et al.* (1998, p.20), for most services, people are a vital element of the marketing mix. Zeithaml and Bitner (2003, p.321) state that to build customer-orientated, service-minded workforce, an organisation must hire the right people, develop people to deliver service quality, provide the needed support systems and retain the best people. People affect the quality education offered to this target market and the communication from the university both of which are factors of importance in their selection of a university.

Quality education was the fifth most important factor in choosing a university for the respondents. This also includes the quality of the teaching staff. Getting a quality education is the main reason why students attend a university and is the core aspect of the service offering (Lovelock, 1996,

p.339). As people are a vital element of the marketing mix and affect the quality of service received (Palmer, 2011, p.37 and McColl *et al.*, 1998, p.20) the teaching staff play an important role in the core service. The CSA needs to ensure that it employs the best people in terms of qualifications, experience and demeanour. They should also ensure that staff teaching the Foundation students are aware of their backgrounds and specific needs. The education offered in Foundation Programme should be continually assessed to ensure that it is addressing the needs of the students and that it is of a high quality. The quality of the teaching staff could be measured in a number of ways such as ratings given by external bodies which considers their qualifications and research and publications and evaluations by current students and graduates.

I need mentors to guide me was an important need for the respondents. The university environment can be new and very different for the target market. They would be exposed to so many things which could be intimidating or overwhelming for them. Having mentors to guide them can help ease the transition into university. Mentors are part of the supplementary service (Lovelock, 1996, p.341) offered to them, i.e. the additional benefits that add value. To improve this area the CSA can employ past or senior students as mentors for the Foundation students. They would need to be given training so that they provide the correct information and advice to the target market. The right people must be employed for this task so that they make a positive impact and also add to the quality of service being offered. The students should be informed of the availability of the mentors and encouraged to seek them for assistance.

UKZN needs to put measures in place to assess that front line staff are communicating with prospective students in a professional manner. This can be done by getting prospective students to complete surveys on their experience. A reward system for staff who excel in this area can help motivate them to improve their communication with students. By addressing these areas it will help satisfy the target market's *need to feel welcomed*.

10.4.6 Physical Evidence

Physical evidence refers to the environments in which the service is delivered and where the firm and customer interact, and any tangible components that facilitate performance or communication of the service (Zeithaml and Bitner, 2003, p.25). The physical evidence in this study refers to the communication from the university and the infrastructure of the university. These are important factors to the target market. Improvements here will help make the service more tangible to the target market.

Infrastructure of the university, i.e. facilities e.g. library, laboratories, computer labs, accommodation etc, was the top most important factor for this target market. This target market has experienced an education with little or no exposure to libraries, laboratories, computer labs etc (Grayson, 1996, p.993, Fiske and Ladd, 2006, p.96 and Boekhorst, 2004, p. 67). This need is therefore of particular importance to them. Addressing and improving this need can have huge financial implications for UKZN. It might not be necessary to spend large amounts of money in this area by making major changes but to assess these facilities to see if they are modern, have up-to-date technology and provide value for money spent. This could require smaller changes to be made. UKZN would also need to assess if these facilities are properly maintained as this will impact its beauty and the target market's perception of them. Another recommendation is for UKZN to assess the availability of these facilities especially for the Foundation students. They might require more time in laboratories and libraries. For example, does the library operating hours fit in with the Foundation students' time or does the university have sufficient accommodation for Foundation students. Infrastructure of the university is also where this service can be made more tangible for its effective positioning (Blankson and Kalafatis, 1999, p.109). The customers or target market can actually see the library and laboratories etc. as it provides the physical evidence of the service (Zeithaml and Bitner, 2003, p.25). Thus the quality of UKZN's infrastructure should also be communicated to the target market with visual representation to help change any negative perceptions.

Communication is through written information such as posters or brochures or other forms of advertising. Training and guidance needs to be given to staff who are responsible for sending written communication to the target market to ensure that professionalism is maintained in all these materials.

10.4.7 Process

Process decisions affect how the service is delivered to consumers. Process refers to the actual procedures, mechanisms, and flow of activities by which the service is delivered (Zeithaml and Bitner, 2003, p.25). The target market's need for the university to make them feel welcome and to help them get job experience have implications of the process decisions made to deliver the service. By making these improvements in the services marketing mix for the Foundation Programme the positioning strategy of the CSA will be strengthened to occupy a better image in the minds of its target market.

10.5 Conclusion

This chapter included recommendations to improve the position of the Foundation Programme in the minds of its target market. Recommendations were made for the CSA management, UKZN policy makers and the Department of Education. By making these improvements the target market can achieve the CSA's desired image of success (Kioko, 2008). The next chapter deals with the limitations of this study and recommendations for future research.

Chapter 11: Limitations and Recommendations for Future Research

11.1 Introduction

The limitations that were experienced in this study are discussed in this chapter. Following this some recommendations for future research are made.

11.2 Limitations

Although this research was planned, conducted and analysed to the best of the researcher's ability there are still limitations within this study. No research, no matter how good it is, is perfect. An important part of any reputable research is to acknowledge this fact.

Not all the sampled schools participated in the study. Some were very busy and declined to participate. There was a 77% response rate from the sampled schools. However 520 respondents completed the questionnaire and this was more than adequate according to the results of the sample calculator.

The nature of the disadvantaged schools meant that the majority of them did not have facilities such as telephone, email and faxes. This made it difficult to communicate with them and obtain the required permission for this study which also caused some delays in the process. Studies of similar nature should make provision for personal visits to these schools. This will be more time consuming and costly but the best way to interact with the target market.

The questionnaire might have been too long for the respondents. Some questions were incomplete. Although the researcher had requested ample time for the respondents to complete the questionnaire they might have been tired with all the questioning. The unanswered questions were mainly in the ratings of the competing universities and it is possible that the respondents might have left this blank because they had no or very little knowledge of them.

It was also possible that there might have been possible bias in the answering of the questions as UKZN was rated higher than the other institutions. It is possible that the respondents might have thought they would benefit by giving UKZN a favourable response in terms of bursaries. However the researcher had followed all ethical requirements for this study which included explaining the

value of honest answers from the participants. The anonymity of the respondents were also explained and protected.

Even with the above mentioned limitations, the researcher does not believe that these would detract from the value that this research adds.

11.3 Recommendations for Future Research

Due to time constraints and the enormity of this study the sample was restricted to disadvantaged schools in KwaZulu-Natal. The students from the Foundation Programme are mostly from this province. However it would be interesting to extend this study to see if there is a similar pattern in the responses from the other provinces.

As parents are the most influential in the target market's decision of which university to attend, future research can include finding out what they have access to, e.g. television, radio, newspapers and internet. It would also be useful to conduct a survey to find out what the parents perceptions of the Foundation Programme at UKZN are.

As teachers are very influential to this target market it would be helpful to find out how many of them are aware of the Foundation Programme and their perceptions of it. This research will strengthen the promotion strategies of the CSA.

Future research can also include finding out what the target market has access to for e.g. Newspaper, radio, television, cellphone and internet. Reminders about the access programme could be advertised through these channels.

An additional aspect for future research could include obtaining information of access programmes at other universities from the Department of Education. This information will help view the competition, side by side, in terms of what they have to offer to the target market. Comparison between other institutions can include looking at when they started, how do they fare in terms of enrolment targets, are their entry requirements different and what do they offer in terms of financial assistance. This study looked at the competition from the perspective of the target market.

11.4 Conclusion

The response rates, the poor communication with the schools and the number of questions were limitations experienced in this study. Recommendations for future research included extending the sample to other provinces, gathering more information from parents and teachers who are most influential for this target market, finding out what channels of media the target market has access to and obtaining research on the competing universities and comparing them side by side.

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Location of Selected Secondary Schools in KwaZulu-Natal





Dear Yvette,

Re: Masters Research

I'd like to inform you that you have full permission to conduct the research described in your request, and offer any assistance possible to help you in carrying out the study (e.g. interviews, documents, etc).

I'll be very keen to see the results of the study and any recommendations, and we'll hopefully pick up a few tips to help us with recruitment and planning for CSA programmes.

Kind Regards

J. Kioko
Head, Centre for Science Access

Centre for Science Access

Postal Address: Private Bag X01, Scottsville, 3209, South Africa

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PROVINCE OF KWAZULU-NATAL
ISIFUNDAZWE SAKWAZULU-NATALI

DEPARTMENT OF EDUCATION
UMNYANGO WEMFUNDO

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Pietermaritzburg
3200

228 Pietermaritz Street
PIETERMARITZBURG

INHLOKHOVISI	PIETERMARITZBURG	HEAD OFFICE
Imibuzo: Enquiries: Sibusiso Alwar	Reference: Inkomba: 0064/2008	Date: Usuku: 03 December 2008

Ms Y. Chetty
P. O Box 100369
Scottsville
3200

RESEARCH PROPOSAL: AN INVESTIGATION INTO WHY THE SCIENCE FOUNDATION PROGRAMME IS NOT ATTRACTING SUFFICIENT APPLICANTS TO MEET ITS ENROLMENT TARGETS

Your application to conduct the above-mentioned research in schools in the attached list has been approved subject to the following conditions:

1. Principals, educators and learners are under no obligation to assist you in your investigation.
2. Principals, educators, learners and schools should not be identifiable in any way from the results of the investigation.
3. You make all the arrangements concerning your investigation.
4. Educator programmes are not to be interrupted.
5. The investigation is to be conducted from 08 December 2008 to 08 December 2009.
6. Should you wish to extend the period of your survey at the school(s) please contact Mr Sibusiso Alwar at the contact numbers above.
7. A photocopy of this letter is submitted to the principal of the school where the intended research is to be conducted.
8. Your research will be limited to the schools submitted.
9. A brief summary of the content, findings and recommendations is provided to the Director: Resource Planning.

10. The Department receives a copy of the completed report/dissertation/thesis addressed to

The Director: Resource Planning
Private Bag X9137
Pietermaritzburg
3200

We wish you success in your research.

Kind regards



R. Cassius Lubisi (PhD)
Superintendent-General



PROVINCE OF KWAZULU-NATAL
ISIFUNDAZWE SAKWAZULU-NATALI

DEPARTMENT OF EDUCATION
UMNYANGO WEMFUNDO

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INHLOKHOVISI	PIETERMARITZBURG	HEAD OFFICE
Imibuzo: Enquiries: Sibusiso Alwar	Reference: Inkomba: 0064/2008	Date: Usuku: 03 December 2008

Ms Y Chetty
P. O Box 100369
Scottsville
3200

LIST OF SCHOOLS

1. Albin High School
2. Dondotha High School
3. Esethu High School
4. Isadlwana High School
5. Khandimfundo Secondary School
6. Khula High School
7. Kwantashana Public School
8. Laduma High School
9. Majiya Secondary School
10. Manqamu High School
11. Maqhikizana High School
12. Maqoqa High School
13. Mdonswa High School
14. Mkhombisi High School
15. Mphelandaba Secondary School
16. Mthende High School
17. Mthunziwoxolo Secondary School
18. Ndimande High School
19. Ndlovana High School
20. Ngebhuzana High School
21. Ngono Secondary School
22. Nsabekhuluma High School
23. Nsalamanga High School
24. Potshini High School

- 25. Sibhamu High School
- 26. Sikhuthele High School
- 27. Simangele Secondary School
- 28. Siphephele Secondary School
- 29. Siphosethu High School
- 30. Siyanda Secondary School

Kind regards



R Cassius Lubisi, (PhD)
Superintendent-General



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Ms Y. Chetty
P. O Box 100369
Scottsville
3200

PERMISSION TO INTERVIEW LEARNERS AND EDUCATORS

The above matter refers.

Permission is hereby granted to interview Departmental Officials, learners and educators in selected schools of the Province of KwaZulu-Natal subject to the following conditions:

1. You make all the arrangements concerning your interviews.
2. Educators' and work programmes are not interrupted.
3. Interviews are not conducted during the time of writing examinations in schools.
4. Learners, educators and schools and other Departmental Officials are not identifiable in any way from the results of the interviews.
5. Your interviews are limited only to targeted schools.
6. A brief summary of the interview content, findings and recommendations is provided to my office.
7. A copy of this letter is submitted to District Managers and principals of schools or heads of section where the intended interviews are to be conducted.

The KZN Department of education fully supports your commitment to research: **An investigation into why the Science Foundation Programme is not attracting sufficient application to meet its enrolment targets**

It is hoped that you will find the above in order.

Best Wishes

R Cassius Lubisi, (PhD)
Superintendent-General



PROVINCE OF KWAZULU-NATAL
ISIFUNDAZWE SAKWAZULU-NATALI

DEPARTMENT OF EDUCATION
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INHLOKHOVISI	PIETERMARITZBURG	HEAD OFFICE
Imibuzo: Enquiries: Sibusiso Alwar	Reference: Inkomba: 0064/2008	Date: Usuku: 23 March 2009

TO WHOM IT MAY CONCERN:

This serve to inform you that Y Chetty has been given permission to further his/her study in the following schools:

1. Georgetown Secondary School
2. KwaPata Secondary School
3. Phayiphini Secondary School
4. Copesville Secondary School
5. ZamaZulu Secondary School

Kind regards

Ms JSM Mbuli
Manager: Resources Planning

RESOURCES PLANNING DIRECTORATE: RESEARCH UNIT
Office No. G25, 188 Pietermaritz Street, PIETERMARITZBURG, 3201

23 November 2012

Ms Yvette Chetty 201507273
School of Management, IT & Governance
Pietermaritzburg Campus

Dear Ms Chetty

Protocol reference number: HSS/0264/09M
New project title: A Positioning Theory Perspective on Enrolment Targets: The Case of UKZN's Foundation Programme

Approval and change of dissertation title

I wish to confirm that ethical clearance has been granted full approval for the above mentioned project:

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach/Methods must be reviewed and approved through an amendment /modification prior to its implementation. In case you have further queries, please quote the above reference number. Please note: Research data should be securely stored in the school/department for a period of 5 years

Best wishes for the successful completion of your research protocol.

Yours faithfully



.....
Professor Steven Collings (Chair)

cc Supervisor Professor D Vigar-Ellis
cc Academic leader Professor KK Govender
cc School Admin. Ms D Cunynghame

Professor S Collings (Chair)
Humanities & Social Sc Research Ethics Committee
Westville Campus, Govan Mbeki Building

Postal Address: Private Bag X54001, Durban, 4000, South Africa

Telephone: +27 (0)31 260 3587/8350 **Facsimile:** +27 (0)31 260 4609 **Email:** ximbap@ukzn.ac.za / snymanm@ukzn.ac.za

Founding Campuses: ■ Edgewood ■ Howard College ■ Medical School ■ Pietermaritzburg ■ Westville



University of KwaZulu-Natal
School of Management
Informed Consent Document

I, Yvette Chetty, am a student currently registered for the Masters in Commerce Degree on the Pietermaritzburg campus of the University of KwaZulu-Natal (UKZN). A requirement for the degree is a dissertation and I have chosen the following topic:

An investigation into why the Foundation Programme at UKZN is not attracting sufficient applicants to meet its enrolment targets on the Pietermaritzburg campus.

Please note that this investigation is being conducted in my personal capacity. I can be reached on chetty@ukzn.ac.za or 033-260 6116 or 0837993738

My academic supervisor is Professor Debbie Vigar-Ellis, based in the School of Management on the Pietermaritzburg campus of the University of KwaZulu-Natal. She can be contacted on Vigard@ukzn.ac.za or 033 2605899.

The purpose of this research is to investigate why the Centre for Science Access (CSA) at UKZN is not attracting sufficient applicants to meet its enrolment targets for the Foundation programme on the Pietermaritzburg campus. Please note that the name of your school or the participants will not be included in the report as only the summary will be included. The anonymity and confidentiality of your school and the participants is of utmost importance and will be maintained throughout the study.

Your participation in the focus group interview is completely voluntary and you are in no way forced to participate. You have the right to withdraw at any time during the study.

I appreciate the time and effort it would take to participate in this study. I would be very grateful for your participation, as it would enable me to complete my dissertation and degree.

Please complete the section below:

I (Full names of participant) from (name of school) hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to the above mentioned school participating in the research project. I understand that I am at liberty to withdraw from the project at any time, should I so desire.

Signature of Participant.....

Signature of Parent/Guardian.....

Date.....

University of KwaZulu-Natal
School of Management
Informed Consent Document

I, Yvette Chetty, am a student currently registered for the Masters in Commerce Degree on the Pietermaritzburg campus of the University of KwaZulu-Natal (UKZN). A requirement for the degree is a dissertation and I have chosen the following topic:

An investigation into why the Foundation Programme at UKZN is not attracting sufficient applicants to meet its enrolment targets on the Pietermaritzburg campus.

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The purpose of this research is to investigate why the Centre for Science Access (CSA) at UKZN is not attracting sufficient applicants to meet its enrolment targets for the Foundation programme on the Pietermaritzburg campus. Please note that your name or the name of your school will not be included in the report as only the summary of this research will be included. The anonymity and confidentiality of yourself and your school is of utmost importance and will be maintained throughout the study.

Your participation in the questionnaire is completely voluntary and you are in no way forced to participate. You have the right to withdraw at any time during the study.

I appreciate the time and effort it would take to participate in this study. I would be very grateful for your participation, as it would enable me to complete my dissertation and degree.

Please complete the section below:

I (Full names of participant) from (name of school) hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to myself participating in the research project. I understand that I am at liberty to withdraw from the project at any time, should I so desire.

Signature of Participant..... Date

To be completed by parent/guardian

I (Full names of parent/guardian) hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to my child participating in the research project. I understand that s/he is at liberty to withdraw from the project at any time, should s/he so desire.

Signature of Parent/Guardian..... Date.....

Interview Questions for Focus Groups

1. This is an exciting stage in your life as you are now at the end of your schooling and you have many dreams about your future. How many of you would like to attend university after completing school?

2. Who would you say influences your decision about attending university?

Probes:

- *Parents*
- *Friends*
- *Teachers*
- *Siblings*
- *Other relatives*

3. What are some of the things that influence your decision about which university to attend?

Probes:

- *Costs*
- *Financial aid – do you know that there are limited amount of financial aid packages available? What effect does this have?*
- *Location*
- *Leading to employment, future career prospects*
- *Reputation of the university*
- *Institution's infrastructure – library facilities, classroom, computer labs, campus security campus accommodation*
- *Campus atmosphere*
- *Quality of teaching staff*
- *Quality of life during studies*
- *Course content*
- *Type of course you want to do*
- *Sporting*
- *Institution's effort to communicate with students: written information, campus visits, recruitment & admissions*
- *Access to university/ degree*

4. *Is there something else that you are considering doing besides going to university? (What are the other things that compete with your decision about attending university?)*

5. *What are some of your important needs that you think should be considered in an access programme?*

6. *What are the important factors that you look for at in an access programme and university?*

Probes:

- *Costs*
- *Financial aid*
- *Location*
- *Leading to employment, future career prospects*
- *Reputation of the university*
- *Institution's infrastructure – library facilities, classroom, computer labs, campus security campus accommodation*
- *Campus atmosphere*
- *Quality of teaching staff*
- *Quality of life during studies*
- *Course content*
- *Type of course you want to do*
- *Sporting*
- *Institution's effort to communicate with students: written information, campus visits, recruitment & admissions*

7. *The Foundation Programmes at UKZN are offered in Pmb and Dbn. Which would you like to study at and why?*

8. *What are your opinions about UKZN?*

9. *Is there any reason that you would not want to study at UKZN?*

10. *What do you think about the Foundation Programme (in science) at UKZN?*
11. *What do you think about the Foundation Programme at UKZN compared to other institutions?*
12. *Which are the other institutions that you would consider attending?*
13. *Are you aware of any advertising that the Centre for Science Access (CSA) does?*
14. *The CSA uses ex and current students to visit schools and advertise the programmes. What do you think about this?*
15. *Do you think there is a more appropriate way to advertise the programme?*
16. *The University of Natal and University of Durban Westville merged to form one institution – UKZN. What you do think about this merger?*
17. *How do you view the new UKZN?*
18. *Has the merger affected your decision about which university to attend?*
19. *The CSA also offers another access programme which is the Augmented Programme Have you heard of it?*
20. *What are you opinions about the Augmented Programme?*
21. *How do you view the Augmented Programme compared to the Foundation Programme?*

Questionnaire: Stage 2 Research

Instructions to Respondents:

- Please answer honestly.
- There are no incorrect answers. It is your personal views that we are interested in.
- Please ensure that you answer the entire questionnaire.
- I truly value your participation. Thank you for taking the time to complete this questionnaire.

Section A: Biographical Information:

Please tick (✓) the appropriate answer

1. Gender:

Female (1)

Male (2)

2. Age:

16 years old	(1)
17 years old	(2)

18 years old	(3)
19 years old	(4)

Other (please specify) (5)

3. Home Language:

IsiZulu	(1)
IsiXhosa	(2)

English	(3)
Other (please specify)	(4)

4. Living Arrangements

I live with one of my parents	(1)
I live with both my parents	(2)
I live with my relatives	(3)

I live with my grandparent(s)	(4)
I live with my guardian	(5)
Other (please specify)	(6)

5. Breadwinners

Both my parents are working	(1)
Only my father is working	(2)
My guardian is working	(3)

Only my mother is working	(4)
My grandparent(s) whom I live with works	(5)
Neither my parents nor guardian works	(6)

Section B

For each of the following questions and statements please tick (✓) the appropriate answer

1. Would you like to attend university after completing school?

Yes (1)

No (2)

2. In choosing a university, please indicate the level of importance of each factor influencing which university you attend. Tick (✓) the level of importance

		1. Not at all Important	2. Not very important	3. Neutral	4. Important	5. Very Important
1	Communication from the university (i.e. through written information such as posters or brochures or presentations by a university staff or other forms of advertising)	1	2	3	4	5
2	Financial Assistance from the university (loans or bursaries or low cost of fees)	1	2	3	4	5
3	Reputation of the institution	1	2	3	4	5
4	The university offers the career and qualification I want to study	1	2	3	4	5
5	Studying at that university will lead me to employment	1	2	3	4	5
6	Positive feedback from university students attending that university	1	2	3	4	5
7	The university is near my home	1	2	3	4	5
8	The university is far away from my home	1	2	3	4	5
9	Quality of life while studying (university atmosphere, entertainment or being with friends studying at the same university)	1	2	3	4	5
10	Security	1	2	3	4	5
11	Quality education (includes quality of teaching staff)	1	2	3	4	5
12	Sports	1	2	3	4	5
13	Infrastructure of the university (facilities e.g. library, laboratories, computer labs, accommodation etc.)	1	2	3	4	5
14	Seeing successful graduates of the university	1	2	3	4	5
15	The university will allow me to be independent	1	2	3	4	5

3. Please indicate the level of importance of these needs considering an access programme and university
Please tick (✓) the appropriate answer for each need

		1. Not at all Important	2. Not very important	3. Neutral	4. Important	5. Very Important
1	I need the university to make me feel welcome	1	2	3	4	5
2	I need financial assistance from the university (i.e. loan or bursary)	1	2	3	4	5
3	I need the use of laboratories at the university	1	2	3	4	5
4	I need to be motivated in my studies	1	2	3	4	5
5	I need the university to help me get job experience	1	2	3	4	5
6	My safety and security needs to be taken care of	1	2	3	4	5
7	My health needs to be taken care of	1	2	3	4	5
8	I need a place to buy food	1	2	3	4	5
9	I need accommodation close to the university	1	2	3	4	5
10	I need career advice	1	2	3	4	5
11	I need counselling advice	1	2	3	4	5
12	I need mentors to guide me	1	2	3	4	5

4. What else are you considering besides going to university, after school? Please tick (✓)

		1. Strongly Disagree	2. Disagree	3. Agree	4. Strongly Agree
1	Finding a job	1	2	3	4
2	Working in my family business	1	2	3	4
3	Other (please specify)	1	2	3	4

5. Who influences your decision about which university to attend? Please tick (✓)

		1. Strongly Disagree	2. Disagree	3. Agree	4. Strongly Agree
1	Parents	1	2	3	4
2	Family (other than parents e.g. aunt)	1	2	3	4
3	Teacher	1	2	3	4
4	Friends	1	2	3	4
5	Teacher (s)	1	2	3	4
6	No one, I am self -motivated	1	2	3	4
7	Community (e.g. neighbours	1	2	3	4
8	University students	1	2	3	4
9	Other (please specify)	1	2	3	4

6. Would you consider attending another university besides the University of KwaZulu-Natal (UKZN)? Please tick (✓)

No	Yes (please specify the names)
----	--------------------------------

7a. Are you considering doing a science or science related degree? Please tick (✓)

Yes	No (please specify which degree you intend doing)
-----	---------------------------------------------------

7b. If you answered Yes to question 7a: If you did not meet the entry requirements to go directly into a science degree, would you consider doing an access programme that will allow you to continue with a science degree thereafter? Please tick (✓)

Yes	No (why not?)
-----	---------------

Section C

1. Have you heard about the Foundation Programme at the University of KwaZulu-Natal? Please tick (✓)

Yes	No
-----	----

2. Have you heard about any Access programmes in Science at other universities? Please tick (✓)

No	Yes (please specify which universities)
----	-----------------------------------------

3. Using the scale below please rate the Foundation Programme at UKZN and Foundation Programmes in Science at other universities on each of the following factors?

Even though you may not have had experience with these universities it is your opinion, i.e. what you think, that matters.

1	2	3	4	5	6
Very poor	Poor	Average	Good	Excellent	I don't know

		A. University of KwaZulu-Natal	B. University of Cape Town	C. University of Fort Hare	D. University of the Witwatersrand	E. University of Stellenbosch	F. University of Rhodes	G. University of Pretoria	H. University of Zululand
1	Communication from the university (i.e. through written information such as posters or brochures or presentations by a university staff or other forms of advertising)								
2	Financial Assistance (loans or bursaries or cost of fees)								
3	Reputation of the institution								
4	The career and qualifications offered								
5	Studying at that university will lead me to employment								
6	Positive feedback from university students attending that university								
7	The university is near my home								
8	The university is far away from my home								
9	Quality of life while studying (university atmosphere, entertainment or being with friends studying at the same university)								
10	Security								
11	Quality education (includes quality of teaching staff)								
12	Sports								
13	Infrastructure of the university (facilities e.g. library, laboratories, computer labs, accommodation etc.)								
14	Seeing successful graduates of the university								
15	The university will allow me to be independent								

4. Have you heard about the Augmented Programme at the University of KwaZulu-Natal? Please tick (✓)

Yes	(1)	No	(2)
-----	-----	----	-----

5a. The Foundation Programme is an access course for students from disadvantaged schools who do not meet the requirements for direct entry into a Science degree. It is offered on both the Pietermaritzburg and Westville campuses of the University of KwaZulu-Natal. If you were going to apply for the programme which campus would you like to study at? Please tick (✓)

Pietermaritzburg	(1)	Westville	(2)	Wouldn't apply	(3)
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5b. If you apply, why would you choose that campus? Please tick (✓)

		1. Strongly Disagree	2. Disagree	3. Agree	4. Strongly Agree
1	It is closer to home	1	2	3	4
2	It is further away from my home	1	2	3	4
3	It is closer to the beach	1	2	3	4
4	The degree I want to study is offered there	1	2	3	4
5	I can save travelling time and money as I will be living on campus	1	2	3	4
6	It will be cheaper, I can live at home and travel daily	1	2	3	4
7	Other (please specify)	1	2	3	4

6. Are you aware of any advertising that the Centre for Science Access (CSA) at UKZN does? Please tick (✓)

Yes	(1)	No	(2)
-----	-----	----	-----

7. Which of the following ways of advertising do you think the CSA should use to reach you? Please tick (✓)

		1. Strongly Disagree	2. Disagree	3. Agree	4. Strongly Agree
1	Send CSA students (from our community) to visit our school and do a presentation about the access programmes	1	2	3	4
2	Send a staff member to visit our school	1	2	3	4
3	Advertise on Ukhozi radio station	1	2	3	4
4	Put up posters in our community	1	2	3	4
5	Use cellphone advertising	1	2	3	4
6	Show us successful university graduates	1	2	3	4
7	Advertise on television	1	2	3	4
8	Advertise in newspapers	1	2	3	4
9	Other (please specify)	1	2	3	4

Section D

1. What are your opinions about UKZN? Please tick (✓)

		1. Strongly Disagree	2. Disagree	3. Agree	4. Strongly Agree
1	UKZN is a great university	1	2	3	4
2	UKZN has good security	1	2	3	4
3	UKZN is a safe place	1	2	3	4
4	UKZN has lovely campuses	1	2	3	4
5	UKZN provides quality education	1	2	3	4
6	The students from UKZN are friendly	1	2	3	4
7	UKZN helps the community	1	2	3	4
8	UKZN does not provide sufficient career information	1	2	3	4
9	UKZN graduates are successful	1	2	3	4
10	UKZN is slow in responding to its applicants	1	2	3	4
11	Other (please specify)	1	2	3	4

2. The University of Natal and the University of Durban Westville merged (joined) to form the University of KwaZulu-Natal (UKZN) in 2004. Did you know about this merger? Please tick (✓)

Yes	(1)	No	(2)
-----	-----	----	-----

3a. Does this merger affect your decision about which university to attend? Please tick (✓)

Yes	(1)	No	(2)
-----	-----	----	-----

3b. If so, how

--

4. Describe UKZN in 3 words

--

5. What in your opinion is UKZN best known for?

--

Thank you for your participation!

Tables Referred to in Chapter 7**Table I 1: Results of Shapiro-Wilk Test for Normality based on Factors from Question B2 and****Gender**

	Gender	Shapiro-Wilk		
		Statistic	df	Sig.
Communication	Female	.614	182	.000
	Male	.661	134	.000
Financial assistance	Female	.485	182	.000
	Male	.538	134	.000
Reputation	Female	.726	182	.000
	Male	.746	134	.000
B2.4	Female	.515	182	.000
	Male	.578	134	.000
Employment	Female	.561	182	.000
	Male	.517	134	.000
Positive feedback	Female	.729	182	.000
	Male	.692	134	.000
Close to home	Female	.873	182	.000
	Male	.866	134	.000
Far from home	Female	.894	182	.000
	Male	.898	134	.000
Quality of university life	Female	.841	182	.000
	Male	.844	134	.000
Security	Female	.532	182	.000
	Male	.635	134	.000
Quality education	Female	.552	182	.000
	Male	.598	134	.000
Sport	Female	.813	182	.000
	Male	.814	134	.000
Academic facilities	Female	.437	182	.000
	Male	.490	134	.000
Successful graduates	Female	.607	182	.000
	Male	.662	134	.000
Independent	Female	.718	182	.000
	Male	.731	134	.000

Table I 2: Results of Shapiro-Wilk Test for Normality based on Factors from Question B2 and Living Arrangements

	Living arrangements		Shapiro-Wilk		
			Statistic	df	Sig.
Communication	—	1 parent	.640	117	.000
		2 parents	.635	102	.000
		relatives	.732	22	.000
		grandparents	.610	33	.000
		guardian	.604	38	.000
		other	.729	4	.024
Financial assistance	—	1 parent	.524	117	.000
		2 parents	.477	102	.000
		relatives	.332	22	.000
		grandparents	.609	33	.000
		guardian	.540	38	.000
Reputation	—	1 parent	.747	117	.000
		2 parents	.724	102	.000
		relatives	.720	22	.000
		grandparents	.748	33	.000
		guardian	.746	38	.000
		other	.863	4	.272
B2.4	—	1 parent	.559	117	.000
		2 parents	.542	102	.000
		relatives	.551	22	.000
		grandparents	.534	33	.000
		guardian	.502	38	.000
Employment	—	1 parent	.513	117	.000
		2 parents	.532	102	.000
		relatives	.647	22	.000
		grandparents	.531	33	.000
		guardian	.622	38	.000
		other	.630	4	.001
Positive feedback	—	1 parent	.717	117	.000
		2 parents	.695	102	.000
		relatives	.684	22	.000
		grandparents	.727	33	.000
		guardian	.725	38	.000
		other	.945	4	.683
Close to home	—	1 parent	.873	117	.000

		2 parents	.864	102	.000
		relatives	.898	22	.028
		grandparents	.825	33	.000
		guardian	.882	38	.001
		other	.863	4	.272
Far from home	—	1 parent	.894	117	.000
		2 parents	.901	102	.000
		relatives	.880	22	.012
		grandparents	.861	33	.001
		guardian	.880	38	.001
		other	.895	4	.406
Quality of university life	—	1 parent	.853	117	.000
		2 parents	.830	102	.000
		relatives	.817	22	.001
		grandparents	.816	33	.000
		guardian	.837	38	.000
		other	.630	4	.001
Security	—	1 parent	.591	117	.000
		2 parents	.560	102	.000
		relatives	.561	22	.000
		grandparents	.610	33	.000
		guardian	.570	38	.000
		other	.630	4	.001
Quality education	—	1 parent	.511	117	.000
		2 parents	.575	102	.000
		relatives	.605	22	.000
		grandparents	.635	33	.000
		guardian	.589	38	.000
		other	.630	4	.001
Sport	—	1 parent	.793	117	.000
		2 parents	.802	102	.000
		relatives	.850	22	.003
		grandparents	.823	33	.000
		guardian	.806	38	.000
		other	.945	4	.683
Academic facilities	—	1 parent	.455	117	.000
		2 parents	.401	102	.000
		relatives	.556	22	.000
		grandparents	.609	33	.000

		guardian	.509	38	.000
Successful graduates	—	1 parent	.584	117	.000
		2 parents	.644	102	.000
		relatives	.664	22	.000
		grandparents	.670	33	.000
		guardian	.713	38	.000
		other	.630	4	.001
Independent	—	1 parent	.752	117	.000
		2 parents	.653	102	.000
		relatives	.790	22	.000
		grandparents	.752	33	.000
		guardian	.716	38	.000
		other	.630	4	.001

Table I 3: Results of Shapiro-Wilk Test for Normality based on Factors from Question B2 and Breadwinners

		Breadwinners	Shapiro-Wilk		
			Statistic	df	Sig.
Communication	—	Both parents	.711	38	.000
		Father only	.610	80	.000
		Guardian	.711	34	.000
		Mother only	.632	67	.000
		Grandparents	.652	9	.000
		Unemployed	.591	88	.000
Financial assistance	—	Both parents	.639	38	.000
		Father only	.425	80	.000
		Guardian	.572	34	.000
		Mother only	.524	67	.000
		Grandparents	.390	9	.000
		Unemployed	.506	88	.000
Reputation	—	Both parents	.751	38	.000
		Father only	.740	80	.000
		Guardian	.721	34	.000
		Mother only	.740	67	.000
		Grandparents	.763	9	.008
		Unemployed	.723	88	.000
B2.4	—	Both parents	.616	38	.000

		Father only	.543	80	.000
		Guardian	.516	34	.000
		Mother only	.522	67	.000
		Grandparents	.536	9	.000
		Unemployed	.546	88	.000
Employment		Both parents	.660	38	.000
		Father only	.490	80	.000
		Guardian	.572	34	.000
		Mother only	.483	67	.000
		Unemployed	.573	88	.000
Positive feedback		Both parents	.749	38	.000
		Father only	.720	80	.000
		Guardian	.666	34	.000
		Mother only	.701	67	.000
		Grandparents	.655	9	.000
		Unemployed	.724	88	.000
Close to home		Both parents	.875	38	.001
		Father only	.863	80	.000
		Guardian	.869	34	.001
		Mother only	.823	67	.000
		Grandparents	.813	9	.029
		Unemployed	.876	88	.000
Far from home		Both parents	.898	38	.002
		Father only	.884	80	.000
		Guardian	.888	34	.002
		Mother only	.900	67	.000
		Grandparents	.857	9	.088
		Unemployed	.897	88	.000
Quality of university life		Both parents	.872	38	.000
		Father only	.850	80	.000
		Guardian	.787	34	.000
		Mother only	.829	67	.000
		Grandparents	.825	9	.039
		Unemployed	.834	88	.000
Security		Both parents	.643	38	.000
		Father only	.535	80	.000
		Guardian	.591	34	.000
		Mother only	.543	67	.000
		Grandparents	.390	9	.000

		Unemployed	.597	88	.000
Quality education	—	Both parents	.529	38	.000
		Father only	.597	80	.000
		Guardian	.621	34	.000
		Mother only	.543	67	.000
		Grandparents	.767	9	.009
		Unemployed	.585	88	.000
Sport	—	Both parents	.820	38	.000
		Father only	.816	80	.000
		Guardian	.809	34	.000
		Mother only	.807	67	.000
		Grandparents	.810	9	.026
		Unemployed	.783	88	.000
Academic facilities	—	Both parents	.493	38	.000
		Father only	.456	80	.000
		Guardian	.572	34	.000
		Mother only	.484	67	.000
		Grandparents	.531	9	.000
		Unemployed	.454	88	.000
Successful graduates	—	Both parents	.673	38	.000
		Father only	.615	80	.000
		Guardian	.675	34	.000
		Mother only	.575	67	.000
		Grandparents	.659	9	.000
		Unemployed	.707	88	.000
Independent	—	Both parents	.740	38	.000
		Father only	.721	80	.000
		Guardian	.764	34	.000
		Mother only	.724	67	.000
		Grandparents	.763	9	.008
		Unemployed	.698	88	.000

Table I 4: Results of Shapiro-Wilk Test for Normality based on Factors from Question B5 and Gender

	Gender	Shapiro-Wilk		
		Statistic	df	Sig.
Parents	Female	.755	24	.000
	Male	.874	14	.048
Family	Female	.879	24	.008
	Male	.862	14	.032
Teacher	Female	.802	24	.000
	Male	.889	14	.079
Friends	Female	.831	24	.001
	Male	.889	14	.078
Teachers	Female	.859	24	.003
	Male	.837	14	.015
Self motivated	Female	.762	24	.000
	Male	.828	14	.011
Community	Female	.815	24	.001
	Male	.862	14	.033
University students	Female	.837	24	.001
	Male	.800	14	.005
Other	Female	.826	24	.001
	Male	.798	14	.005

Table I 5 : Results of Shapiro-Wilk Test for Normality based on Factors from Question B5 and Living Arrangements

	Living arrangements	Shapiro-Wilk		
		Statistic	df	Sig.
Parents	1 parent	.789	16	.002
	2 parents	.785	11	.006
	relatives	.863	4	.272
	grandparents			
	guardian	.630	4	.001
Family	1 parent	.874	16	.032
	2 parents	.899	11	.181
	relatives	.630	4	.001
	guardian	.630	4	.001
Teacher	1 parent	.862	16	.021

	2 parents	.863	11	.064
	relatives	.863	4	.272
	guardian	.630	4	.001
Friends	1 parent	.868	16	.025
	2 parents	.906	11	.217
	relatives	.863	4	.272
	guardian	.849	4	.224
Teachers	1 parent	.857	16	.017
	2 parents	.822	11	.018
	relatives	.993	4	.972
	guardian	.863	4	.272
Self motivated	1 parent	.732	16	.000
	2 parents	.709	11	.001
	relatives	.630	4	.001
	grandparents			
	guardian	.729	4	.024
Community	1 parent	.839	16	.009
	2 parents	.858	11	.054
	relatives	.895	4	.406
	grandparents			
	guardian	.827	4	.161
University students	1 parent	.872	16	.029
	2 parents	.828	11	.022
	relatives	.945	4	.683
	grandparents			
	guardian	.945	4	.683
Other	1 parent	.827	16	.006
	2 parents	.778	11	.005
	relatives	.729	4	.024
	grandparents			
	guardian	.863	4	.272

Table I 6: Results of Shapiro-Wilk Test for Normality based on Factors from Question B5 and Breadwinners

	Breadwinners	Shapiro-Wilk		
		Statistic	df	Sig.
Parents	Father only	.789	14	.004
	Guardian	.821	5	.119
	Mother only	.922	7	.482
	Unemployed	.731	10	.002
Family	Father only	.801	14	.005
	Guardian	.883	5	.325
	Mother only	.858	7	.144
	Unemployed	.781	10	.008
Teacher	Father only	.836	14	.014
	Guardian	.881	5	.314
	Mother only	.894	7	.294
	Unemployed	.655	10	.000
Friends	Father only	.880	14	.058
	Guardian	.771	5	.046
	Mother only	.922	7	.482
	Unemployed	.826	10	.030
Teachers	Father only	.853	14	.025
	Guardian	.961	5	.814
	Mother only	.732	7	.008
	Unemployed	.756	10	.004
Self motivated	Father only	.751	14	.001
	Guardian	.961	5	.814
	Mother only	.600	7	.000
	Unemployed	.781	10	.008
Community	Father only	.853	14	.025
	Guardian	.828	5	.135
	Mother only	.777	7	.024
	Unemployed	.794	10	.012
University students	Father only	.819	14	.009
	Guardian	.961	5	.814
	Mother only	.937	7	.609
	Unemployed	.886	10	.152
Other	Father only	.824	14	.010
	Guardian	.833	5	.146
	Mother only	.818	7	.062

	Unemployed	.855	10	.067
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Table I 7: Cronbach's Alpha for Question B2

Reliability Statistics	
Cronbach's Alpha	N of Items
.771	15

Table I 8: Corrected Item Total Correlation for Question B2

	Corrected Item- Total Correlation	Cronbach's Alpha if Item Deleted
Communication	.436	.754
Financial assistance	.314	.765
Reputation	.379	.758
B2.4	.386	.761
Employment	.389	.759
Positive feedback	.475	.753
Close to home	.351	.768
Far from home	.279	.776
Quality of university life	.385	.761
Security	.486	.752
Quality education	.464	.755
Sport	.417	.755
Academic facilities	.422	.759
Successful graduates	.462	.752
Independent	.401	.756

Table I 9: Guttman Split-Half Coefficient for Question B2

Reliability Statistics			
Cronbach's Alpha	Part 1	Value	.599
		N of Items	8 ^a
	Part 2	Value	.673
		N of Items	7 ^b
	Total N of Items		15
	Correlation Between Forms		.612
Spearman-Brown Coefficient	Equal Length		.759
	Unequal Length		.760
Guttman Split-Half Coefficient			.758
a. The items are: Communication, Financial assistance, Reputation, B2.4, Employment, Positive feedback, Close to home, Far from home.			
b. The items are: Far from home, Quality of university life, Security, Quality education, Sport, Academic facilities, Successful graduates, Independent.			

Table I 10: Cronbach's Alpha for Question B3

Reliability Statistics	
Cronbach's Alpha	N of Items
.815	12

Table I 11: Guttman Split-Half Coefficient for Question B3

Reliability Statistics				
Cronbach's Alpha	Part 1	Value	Guttman Split-Half Coefficient for Question B3	.640
		N of Items		6 ^a
	Part 2	Value		.765
		N of Items		6 ^b
	Total N of Items			12
Correlation Between Forms				.606
Spearman-Brown Coefficient	Equal Length			.755
	Unequal Length			.755
Guttman Split-Half Coefficient				.732
a. The items are: B3.1, B3.2, B3.3, B3.4, B3.5, B3.6.				
b. The items are: B3.7, B3.8, B3.9, B3.10, B3.11, B3.12.				

Table I 12: Corrected item Total Correlation for Question B3

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
B3.1	48.81	25.222	.428	.805
B3.2	48.66	26.445	.349	.811
B3.3	48.70	26.392	.381	.809
B3.4	48.99	24.088	.427	.807
B3.5	48.70	26.105	.428	.806
B3.6	48.95	24.721	.464	.802
B3.7	49.20	23.242	.493	.800
B3.8	49.14	23.711	.499	.799
B3.9	48.90	24.702	.472	.801
B3.10	48.85	24.974	.547	.797
B3.11	49.21	23.531	.551	.794
B3.12	49.10	23.076	.585	.790

Table I 13: Cronbach's Alpha for Question B4

Reliability Statistics		
	Cronbach's Alpha Based on Standardized Items	N of Items
Cronbach's Alpha		
.451	.445	3

Table I 14: Guttman Split Half Coefficient for Question B4

Table 1-14: Guttman Split-Half Coefficient for Question B4			
Reliability Statistics			
Cronbach's Alpha	Part 1	Value	.572
		N of Items	2 ^a
	Part 2	Value	1.000
		N of Items	1 ^b
	Total N of Items		3
Correlation Between Forms			.141
Spearman-Brown Coefficient	Equal Length		.247
	Unequal Length		.260
Guttman Split-Half Coefficient			.216
a. The items are: B4.1, B4.2.			
b. The items are: B4.2, B4.3.			

Table I 15: Corrected item Total Correlation for Question B4

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
B4.1	4.61	2.877	.279	.165	.348
B4.2	5.25	2.349	.430	.202	.042
B4.3	4.92	3.438	.141	.049	.572

Table I 16: Cronbach's Alpha for Question B5

Reliability Statistics	
Cronbach's Alpha	N of Items
.832	9

Table I 17: Guttman Split-Half Coefficient for Question B5

Reliability Statistics			
Cronbach's Alpha	Part 1	Value	.905
		N of Items	5 ^a
	Part 2	Value	.621
		N of Items	4 ^b
	Total N of Items		9
	Correlation Between Forms		.391
Spearman-Brown Coefficient	Equal Length		.562
	Unequal Length		.565
Guttman Split-Half Coefficient		.529	
a. The items are: Parents, Family, Teacher, Friends, Teachers.			
b. The items are: Teachers, Self motivated, Community, University students, Other.			

Table I 18: Corrected Item-Total Correlation for Question B5

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Parents	21.87	29.167	.486	.821
Family	22.38	27.874	.754	.794
Teacher	22.18	25.572	.835	.778
Friends	22.36	27.184	.680	.798
Teachers	22.31	27.640	.682	.799
Self motivated	21.87	32.220	.194	.853
Community	22.54	29.781	.408	.830
University students	22.15	28.660	.559	.812
Other	21.92	30.968	.341	.836

Table I 19: Cronbach's Alpha for Question C3

Reliability Statistics	
Cronbach's Alpha	N of Items
.846	15

Table I 20: Guttman Split-Half Coefficient For Question C3

Reliability Statistics			
Cronbach's Alpha	Part 1	Value	.695
		N of Items	8 ^a
	Part 2	Value	.823
		N of Items	7 ^b
	Total N of Items		15
Correlation Between Forms			.652
Spearman-Brown Coefficient	Equal Length		.789
	Unequal Length		.790
Guttman Split-Half Coefficient			.787
a. The items are: C3A1, C3A2, C3A3, C3A4, C3A5, C3A6, C3A7, C3A8.			
b. The items are: C3A8, C3A9, C3A10, C3A11, C3A12, C3A13, C3A14, C3A15.			

Table I 21: Corrected Item Total Correlation for Question C3

Item-Total Statistics				
Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
C3A1	64.77	68.671	.480	.837
C3A2	64.81	68.156	.519	.835
C3A3	64.86	67.039	.504	.835
C3A4	64.79	68.632	.532	.835
C3A5	64.88	67.896	.503	.835
C3A6	64.85	66.455	.517	.834
C3A7	65.31	69.677	.236	.854
C3A8	66.11	64.345	.326	.858
C3A9	64.92	65.702	.512	.834
C3A10	64.74	66.525	.592	.831
C3A11	64.75	67.931	.587	.832
C3A12	64.79	66.472	.537	.833
C3A13	64.72	67.722	.552	.833
C3A14	64.76	67.462	.550	.833
C3A15	64.75	66.739	.592	.831

Table I 22: Cronbach's Alpha for Question C5b

Reliability Statistics	
Cronbach's Alpha	N of Items

Reliability Statistics	
Cronbach's Alpha	N of Items
.544	7

Table I 23: Corrected Item-Total Correlation for Question C5b

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Close to home	15.87	9.766	.280	.503
Further from home	16.08	10.072	.220	.526
Closer to the beach	16.31	8.688	.493	.417
Degree is offered	15.19	12.198	-.097	.613
Living on campus	15.54	8.763	.445	.434
Cheaper, travel daily	16.08	9.053	.355	.471
Other	15.94	9.271	.222	.534

Table I 24: Guttman Split-Half Coefficient for Question C5b

Reliability Statistics			
Cronbach's Alpha	Part 1	Value	.365
		N of Items	4 ^a
	Part 2	Value	.522
		N of Items	3 ^b
	Total N of Items		7
	Correlation Between Forms		
Spearman-Brown Coefficient	Equal Length		.447
	Unequal Length		.450
Guttman Split-Half Coefficient			.446
a. The items are: Close to home, Further from home, Closer to the beach, Degree is offered.			
b. The items are: Degree is offered, Living on campus, Cheaper, travel daily, Other.			

Table I 25: Kaiser-Meyer-Olkin Measure of Sampling Adequacy for Question C5b

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.602
Bartlett's Test of Sphericity	Approx. Chi-Square	271.482

	df	15
	Sig.	.000

Table I 26: Principal Component Analysis for Question C5b

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	% of			% of			% of		
	Total	Variance	Cumulative %	Total	Variance	Cumulative %	Total	Variance	Cumulative %
1	1.995	33.255	33.255	1.995	33.255	33.255	1.919	31.986	31.986
2	1.206	20.107	53.361	1.206	20.107	53.361	1.283	21.375	53.361
3	.940	15.667	69.028						
4	.744	12.396	81.424						
5	.665	11.085	92.509						
6	.449	7.491	100.000						
Extraction Method: Principal Component Analysis.									

Table I 27: Components for Question C5b

Rotated Component Matrix		
	Component	
	1	2
Living on campus	.686	
Closer to the beach	.679	
Close to home	.612	-.576
Cheaper, travel daily	.565	
Degree is offered	.534	
Further from home		.915

Table I 28: Cronbach's Alpha for Components for Question C5b

	Component	
	1	2
Cronbach's Alpha	0.610	Cannot be calculated since only one item on scale.

Table I 29: Cronbach's Alpha for Question C7

Reliability Statistics	
Cronbach's Alpha	N of Items
.784	9

Table I 30: Corrected Item-Total Correlation for Question C7

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Send CSA students	26.23	12.025	.381	.774
Send staff	26.31	12.062	.324	.782
Ukhozi radio	26.42	11.854	.480	.764
Posters	26.38	10.966	.550	.751
Cellphone adverts	26.62	10.166	.611	.740
Successful grads	26.15	11.975	.474	.765
TV adverts	26.31	11.102	.564	.750
Newspaper adverts	26.35	10.075	.631	.736
Other	26.77	11.305	.301	.797

Table I 31: Guttman Split-Half for Question C7

Reliability Statistics			
Cronbach's Alpha	Part 1	Value	.708
		N of Items	5 ^a
	Part 2	Value	.675
		N of Items	4 ^b
	Total N of Items		9
	Correlation Between Forms		.522
Spearman-Brown Coefficient	Equal Length		.686
	Unequal Length		.688
Guttman Split-Half Coefficient		.685	
a. The items are: Send CSA students, Send staff, Ukhozi radio, Posters, Cellphone adverts.			
b. The items are: Cellphone adverts, Successful grads, TV adverts, Newspaper adverts, Other.			

Table I 32: Cronbach's Alpha for Question D1

Reliability Statistics	
Cronbach's Alpha	N of Items
.661	11

Table I 33: Guttman Split-Half Coefficient for Question D1

Reliability Statistics			
Cronbach's Alpha	Part 1	Value	.734
		N of Items	6 ^a
	Part 2	Value	.519
		N of Items	5 ^b
	Total N of Items		11
Correlation Between Forms			.181
Spearman-Brown Coefficient	Equal Length		.307
	Unequal Length		.308
Guttman Split-Half Coefficient			.304
a. The items are: Great, Good security, Safe, Lovely campuses, Quality, Friendly students.			
b. The items are: Friendly students, Community, Career info, Successful grads, Slow response, Other.			

Table I 34: Corrected Item-Total Correlation for Question D1

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Great	31.28	14.212	.386	.626
Good security	31.50	13.559	.478	.608
Safe	31.33	14.706	.241	.651
Lovely campuses	31.39	14.252	.469	.618
Quality	31.22	14.065	.418	.621
Friendly students	31.83	14.029	.349	.632
Community	31.61	13.546	.625	.593
Career info	31.78	14.183	.297	.642
Successful grads	31.50	12.853	.723	.571
Slow response	32.33	17.059	-.149	.730
Other	32.00	15.176	.057	.703

Table I 35: Kaiser-Meyer-Olkin Measure of Sampling Adequacy for Question D1

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.848
Bartlett's Test of Sphericity	Approx. Chi-Square	972.190
	df	45
	Sig.	.000

Table I 36: Principal Component Analysis for Question D1

Total Variance Explained									
Component	Extraction Sums of Squared								
	Initial Eigenvalues			Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.856	38.558	38.558	3.856	38.558	38.558	3.495	34.947	34.947
2	1.464	14.637	53.195	1.464	14.637	53.195	1.825	18.249	53.195
3	.927	9.273	62.468						
4	.818	8.180	70.647						
5	.612	6.125	76.772						
6	.524	5.239	82.011						
7	.504	5.044	87.055						
8	.468	4.682	91.737						
9	.454	4.538	96.275						
10	.372	3.725	100.000						
Extraction Method: Principal Component Analysis.									

Table I 37: Components for Question D1

Rotated Component Matrix^a		
	Component	
	1	2
Quality	.790	
Great	.786	
Good security	.719	
Successful grads	.703	
Safe	.701	
Lovely campuses	.648	
Slow response		.805
Career info		.679
Community	.414	.532
Friendly students		.525

Table I 38: Cronbach's Alpha for Components of Question D1

	Component	
	1	2
Cronbach's Alpha	0.802	0.573

Table I 39: Summary of Cronbach's Alpha

Question	Cronbach's Alpha
B2	0.771
B3	0.815
B4	0.451
B5	0.832
C3	0.846
C5b	0.544
C7	0.784
D1	0.661 (component 1 has Cronbach alpha of 0.802 and component 2 has Cronbach alpha of 0.573)

Tables Referred to in Chapter 8**Table I 40: Important Factors in Choosing a University**

Item	1. Not at all Important		2. Not very important		3. Neutral		4. Important		5. Very Important		No response	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
1	14	3	9	2	42	8	134	26	301	58	20	4
2	1	0	6	1	18	3	84	16	393	76	18	3
3	13	3	14	3	44	8	134	26	242	47	73	14
4	0	0	3	1	19	4	100	19	379	73	19	4
5	3	1	2	0	34	7	81	16	375	72	25	5
6	4	1	13	3	45	9	169	33	247	48	42	8
7	85	16	95	18	86	17	100	19	125	24	29	6
8	85	16	95	18	86	17	100	19	125	24	29	6
9	46	9	74	14	80	15	138	27	152	29	29	6
10	8	2	9	2	22	4	122	23	333	64	26	5
11	1	0	13	3	26	5	94	18	348	67	38	7
12	14	3	47	9	76	15	178	34	173	33	32	6
13	2	0	5	1	15	3	74	14	403	78	21	4
14	7	1	11	2	30	6	145	28	309	59	18	3
15	16	3	19	4	52	10	146	28	257	49	30	6

Table I 41: Mann-Whitney Results using Gender for Question B2: Factors 1 to 5

Test Statistics^a					
	Communication	Financial assistance	Reputation	B2.4	Employment
Mann-Whitney U	27908.500	28676.000	22560.500	27303.000	27912.000
Wilcoxon W	49436.500	50204.000	58606.500	48009.000	68953.000
Z	-1.097	-.835	-.529	-1.833	-.607
Asymp. Sig. (2-tailed)	.273	.404	.597	.067	.544
a. Grouping Variable: Gender					

Table I 42: Mann-Whitney Results using Gender for Question B2: Factors 6 to 10

Test Statistics^a					
	Positive feedback	Close to home	Far from home	Quality of university life	Security
Mann-Whitney U	26489.500	27301.500	26143.000	27810.500	27263.000
Wilcoxon W	45992.500	68342.500	45646.000	67150.500	47969.000
Z	-.306	-.589	-.859	-.321	-1.314
Asymp. Sig. (2-tailed)	.760	.556	.390	.748	.189
a. Grouping Variable: Gender					

Table I 43: Mann-Whitney Results using Gender for Question B2: Factors 11 to 15

Test Statistics^a					
	Quality education	Sport	Academic facilities	Successful graduates	Independent
Mann-Whitney U	27184.000	27198.000	27992.000	27795.500	26599.000
Wilcoxon W	65410.000	65701.000	48902.000	48501.500	46499.000
Z	-.122	-.548	-1.204	-1.223	-1.208
Asymp. Sig. (2-tailed)	.903	.583	.228	.221	.227
a. Grouping Variable: Gender					

Table I 44: Kruskal-Wallis Results for Question B2 and Living Arrangements

Test Statistics ^{b,c}															
	Communication	Financial assistance	Reputation	B2.4	Employment	Positive feedback	Close to home	Far from home	Quality of university life	Security	Quality education	Sport	Academic facilities	Successful graduates	Independent
Chi-square	4.020	8.459	2.319	2.534	1.532	5.013	1.904	2.959	4.003	2.065	4.341	5.321	4.557	4.985	7.212
df	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Asymp. Sig.	.547	.133	.803	.771	.909	.414	.862	.706	.549	.840	.501	.378	.472	.418	.205

Table I 45: Kruskal-Wallis Results for Question B2 and Breadwinners

Test Statistics ^{b,c}															
	Communication	Financial assistance	Reputation	B2.4	Employment	Positive feedback	Close to home	Far from home	Quality of university life	Security	Quality education	Sport	Academic facilities	Successful graduates	Independent
Chi-square	6.509	2.961	1.630	1.451	5.499	2.303	9.022	6.058	.911	2.346	1.556	1.241	2.243	9.011	.925
df	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Asymp. Sig.	.260	.706	.898	.919	.358	.806	.108	.301	.969	.799	.906	.941	.815	.109	.968

Table I 46: Ranks for Gender for Question B5

	Gender	N	Mean Rank	Sum of Ranks
Parents	Female	271	246.66	66845.50
	Male	194	213.91	41499.50

Table I 47: Mann-Whitney Results using Gender for Question B5

Test Statistics ^a									
	Parents	Family	Teacher	Friends	Teachers	Self motivated	Community	University students	Other
Mann-Whitney U	22584.500	22636.500	21074.000	21686.500	18785.000	22253.000	20485.000	21767.000	361.000
Wilcoxon W	41499.500	39656.500	36650.000	37262.500	33150.000	38906.000	52870.000	36818.000	592.000
Z	-2.800	-1.296	-1.347	-.616	-1.480	-1.549	-.926	-.315	-.115
Asymp. Sig. (2-tailed)	.005	.195	.178	.538	.139	.121	.354	.753	.908

a. Grouping Variable: Gender

Table I 48: Kruskal-Wallis Results using Living Arrangements for Question B5

Test Statistics ^{a,b}									
	Parents	Family	Teacher	Friends	Teachers	Self motivated	Community	University students	Other
Chi-Square	4.663	5.466	6.586	7.611	1.448	8.416	5.105	1.687	3.846
df	5	5	5	5	5	5	5	5	5
Asymp. Sig.	.458	.362	.253	.179	.919	.135	.403	.891	.572

a. Kruskal Wallis Test

b. Grouping Variable: Living arrangements

Table I 49: Ranks for Breadwinners for Question B5

	Breadwinners	N	Mean Rank
Friends	Both parents	52	204.12
	Father only	114	219.96
	Guardian	37	252.91
	Mother only	76	209.72
	Grandparents	11	146.14
	Unemployed	124	188.00
	Total	414	

Table I 50: Kruskal-Wallis Results using Breadwinners for Question B5

Test Statistics ^{a,b}									
	Parents	Family	Teacher	Friends	Teachers	Self motivated	Community	University students	Other
Chi-Square	8.744	2.711	2.472	13.866	3.742	8.288	6.094	1.573	1.555
df	5	5	5	5	5	5	5	5	5
Asymp. Sig.	.120	.744	.781	.016	.587	.141	.297	.904	.907

a. Kruskal Wallis Test

b. Grouping Variable: Breadwinners

**Table I 51: Ranks for Guardian and Grandparents for
Question B5**

	Breadwinners	N	Mean Rank	Sum of Ranks
Friends	Guardian	37	27.43	1015.00
	Grandparents	11	14.64	161.00
	Total	48		

**Table I 52: Mann Whitney
Test Statistics^a**

	Friends
Mann-Whitney U	95.000
Wilcoxon W	161.000
Z	-2.787
Asymp. Sig. (2-tailed)	.005

a. Grouping Variable: Breadwinners

**Table I 53: Ranks for Guardian and Unemployed for Question
B5**

	Breadwinners	N	Mean Rank	Sum of Ranks
Friends	Guardian	37	100.07	3702.50
	Unemployed	124	75.31	9338.50
	Total	161		

**Table I 54: Mann Whitney Test
Statistics^a**

	Friends
Mann-Whitney U	1588.500
Wilcoxon W	9338.500
Z	-2.942
Asymp. Sig. (2-tailed)	.003

a. Grouping Variable: Breadwinners

Table I 55 Means and Standard Deviation for Results of the rating of UKZN

	A. University of UKZN	Mean	Standard Deviation
1	Communication from the university (i.e. through written information such as posters or brochures or presentations by a university staff or other forms of advertising)	4.42	.69708
2	Financial Assistance (loans or bursaries or cost of fees)	4.44	.70338
3	Reputation of the institution	4.29	.83904
4	The career and qualifications offered	4.47	.70833
5	Studying at that university will lead me to employment	4.43	.77318
6	Positive feedback from university students attending that university	4.31	.93346
7	The university is near my home	3.97	1.19215
8	The university is far away from my home	3.14	1.54121
9	Quality of life while studying (university atmosphere, entertainment or being with friends studying at the same university)	4.14	.94363
10	Security	4.42	.77784
11	Quality education (includes quality of teaching staff)	4.52	.65538
12	Sports	4.31	.79906
13	Infrastructure of the university (facilities e.g. library, laboratories, computer labs, accommodation etc.)	4.50	.73341
14	Seeing successful graduates of the university	4.47	.77352
15	The university will allow me to be independent	4.39	.79061

Table I 56: Results for Rating of UCT

	B. University of University of Cape Town	Mean	Standard Deviation
1	Communication from the university (i.e. through written information such as posters or brochures or presentations by a university staff or other forms of advertising)	3.99	1.05406
2	Financial Assistance (loans or bursaries or cost of fees)	4.13	.93472
3	Reputation of the institution	4.14	.87428
4	The career and qualifications offered	4.28	.83061
5	Studying at that university will lead me to employment	4.30	.88393
6	Positive feedback from university students attending that university	4.05	1.10319
7	The university is near my home	2.57	1.52676
8	The university is far away from my home	3.88	1.36919
9	Quality of life while studying (university atmosphere, entertainment or being with friends studying at the same university)	4.01	1.03835
10	Security	4.32	.83158
11	Quality education (includes quality of teaching staff)	4.33	.78083
12	Sports	4.09	.91482
13	Infrastructure of the university (facilities e.g. library, laboratories, computer labs, accommodation etc.)	4.36	.81743
14	Seeing successful graduates of the university	4.30	.91054
15	The university will allow me to be independent	4.27	.88592

Table I 57: Results for Rating of Fort Hare

	C. University of University of Fort Hare	Mean	Standard Deviation
1	Communication from the university (i.e. through written information such as posters or brochures or presentations by a university staff or other forms of advertising)	3.62	1.83542
2	Financial Assistance (loans or bursaries or cost of fees)	3.67	1.85347
3	Reputation of the institution	3.71	1.92843
4	The career and qualifications offered	3.97	2.07228
5	Studying at that university will lead me to employment	3.96	2.07841
6	Positive feedback from university students attending that university	3.60	1.91696
7	The university is near my home	2.53	1.66698
8	The university is far away from my home	3.58	2.07836
9	Quality of life while studying (university atmosphere, entertainment or being with friends studying at the same university)	3.59	1.91831
10	Security	4.07	2.09263
11	Quality education (includes quality of teaching staff)	4.05	2.08356
12	Sports	3.83	1.99795
13	Infrastructure of the university (facilities e.g. library, laboratories, computer labs, accommodation etc.)	4.14	2.14974
14	Seeing successful graduates of the university	3.93	2.06867
15	The university will allow me to be independent	3.93	2.04622

Table I 58: Results for Rating of Witswatersrand

	D. University of Witswatersrand	Mean	Standard Deviation
1	Communication from the university (i.e. through written information such as posters or brochures or presentations by a university staff or other forms of advertising)	3.80	1.09094
2	Financial Assistance (loans or bursaries or cost of fees)	3.88	1.05510
3	Reputation of the institution	4.07	.99767
4	The career and qualifications offered	4.04	.99559
5	Studying at that university will lead me to employment	4.09	.97010
6	Positive feedback from university students attending that university	3.93	1.13561
7	The university is near my home	2.61	1.52046
8	The university is far away from my home	3.67	1.42347
9	Quality of life while studying (university atmosphere, entertainment or being with friends studying at the same university)	3.77	1.12265
10	Security	4.19	.88840
11	Quality education (includes quality of teaching staff)	4.20	.85233
12	Sports	4.05	.98425
13	Infrastructure of the university (facilities e.g. library, laboratories, computer labs, accommodation etc.)	4.24	.87396
14	Seeing successful graduates of the university	4.02	1.04247
15	The university will allow me to be independent	4.05	1.04251

Table I 59: Results for Rating of Stellenbosch

	E. University of Stellenbosch	Mean	Standard Deviation
1	Communication from the university (i.e. through written information such as posters or brochures or presentations by a university staff or other forms of advertising)	3.73	1.14301
2	Financial Assistance (loans or bursaries or cost of fees)	3.66	1.17774
3	Reputation of the institution	3.81	1.09020
4	The career and qualifications offered	3.95	1.04586
5	Studying at that university will lead me to employment	3.93	1.05594
6	Positive feedback from university students attending that university	3.70	1.11912
7	The university is near my home	2.42	1.44513
8	The university is far away from my home	3.59	1.41774
9	Quality of life while studying (university atmosphere, entertainment or being with friends studying at the same university)	3.72	1.08866
10	Security	4.12	.92751
11	Quality education (includes quality of teaching staff)	4.11	.88197
12	Sports	3.87	1.07471
13	Infrastructure of the university (facilities e.g. library, laboratories, computer labs, accommodation etc.)	4.02	.99038
14	Seeing successful graduates of the university	3.82	1.10796
15	The university will allow me to be independent	3.90	1.08320

Table I 60: Results for Rating of Rhodes

	F. University of Rhodes	Mean	Standard Deviation
1	Communication from the university (i.e. through written information such as posters or brochures or presentations by a university staff or other forms of advertising)	3.67	1.20760
2	Financial Assistance (loans or bursaries or cost of fees)	3.58	1.23529
3	Reputation of the institution	3.84	1.03432
4	The career and qualifications offered	3.88	1.10960
5	Studying at that university will lead me to employment	3.91	1.07338
6	Positive feedback from university students attending that university	3.70	1.11757
7	The university is near my home	2.44	1.43965
8	The university is far away from my home	3.58	1.42100
9	Quality of life while studying (university atmosphere, entertainment or being with friends studying at the same university)	3.64	1.19314
10	Security	4.03	.97368
11	Quality education (includes quality of teaching staff)	4.16	.86787
12	Sports	3.88	1.06804
13	Infrastructure of the university (facilities e.g. library, laboratories, computer labs, accommodation etc.)	4.10	.92498
14	Seeing successful graduates of the university	3.93	1.06584
15	The university will allow me to be independent	3.99	1.05905

Table I 61: Results for Rating of Pretoria

	G. University of Pretoria	Mean	Standard Deviation
1	Communication from the university (i.e. through written information such as posters or brochures or presentations by a university staff or other forms of advertising)	4.20	.94111
2	Financial Assistance (loans or bursaries or cost of fees)	4.11	.96998
3	Reputation of the institution	4.08	.93713
4	The career and qualifications offered	4.19	.89518
5	Studying at that university will lead me to employment	4.21	.96137
6	Positive feedback from university students attending that university	4.13	.98630
7	The university is near my home	2.66	1.50934
8	The university is far away from my home	3.75	1.37086
9	Quality of life while studying (university atmosphere, entertainment or being with friends studying at the same university)	3.97	1.03505
10	Security	4.29	.88239
11	Quality education (includes quality of teaching staff)	4.34	.71891
12	Sports	4.18	.89631
13	Infrastructure of the university (facilities e.g. library, laboratories, computer labs, accommodation etc.)	4.35	.79532
14	Seeing successful graduates of the university	4.18	.96463
15	The university will allow me to be independent	4.21	.92588

Table I 62: Results for Rating of Zululand

	H. University of Zululand	Mean	Standard Deviation
1	Communication from the university (i.e. through written information such as posters or brochures or presentations by a university staff or other forms of advertising)	4.23	.87429
2	Financial Assistance (loans or bursaries or cost of fees)	4.24	.90054
3	Reputation of the institution	4.02	1.09182
4	The career and qualifications offered	4.23	.89244
5	Studying at that university will lead me to employment	4.26	.91466
6	Positive feedback from university students attending that university	4.10	1.05476
7	The university is near my home	3.86	1.36135
8	The university is far away from my home	3.21	1.56781
9	Quality of life while studying (university atmosphere, entertainment or being with friends studying at the same university)	4.11	.99882
10	Security	4.33	.85809
11	Quality education (includes quality of teaching staff)	4.29	.88275
12	Sports	4.22	.92361
13	Infrastructure of the university (facilities e.g. library, laboratories, computer labs, accommodation etc.)	4.29	.92710
14	Seeing successful graduates of the university	4.29	.89416
15	The university will allow me to be independent	4.36	.86176

Table I 63: Comparison of Schools Rating of UKZN

Report															
school	Mean for Factors														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	4.8000	4.5833	4.2941	4.4211	4.6818	4.5294	4.0588	3.6000	4.1765	4.5789	4.5556	4.5625	4.4118	4.5789	4.6111
2	4.1429	4.1429	4.0000	4.1250	4.1667	3.8571	4.1250	2.1250	3.8571	4.0000	4.1250	4.1250	4.0000	4.0000	4.0000
3	4.2000	4.7500	4.6000	4.6000	4.2000	4.4000	3.8000	3.2000	4.2000	4.4000	4.4000	4.0000	4.6000	4.4000	4.4000
4	4.5000	4.5000	4.5714	4.6667	4.7500	4.6364	3.8000	4.3000	3.6364	4.7000	4.5000	4.6250	4.6667	4.4545	4.4444
5	4.3333	4.3333	4.3333	4.2500	4.2222	4.4444	4.3000	1.3333	4.2222	4.6667	4.5556	4.1111	4.5000	4.5556	4.5556
6	4.2500	4.3333	3.8182	4.5385	4.1667	3.6923	3.7692	3.3077	4.2000	4.3636	4.2500	4.3077	4.3846	4.2308	4.0000
7	4.7647	4.5000	4.1333	4.6429	4.6923	4.5333	4.2667	3.7333	4.2000	4.3636	4.7000	5.0000	4.5000	4.6429	4.9231
8	4.5000	4.4545	4.0000	4.3333	4.5556	3.7143	3.9091	2.4000	3.1429	4.6250	4.4444	4.4286	4.4286	3.8571	3.8571
9	3.8750	4.4667	4.2857	4.3125	4.2308	4.2143	4.2353	2.5625	4.4167	4.0667	4.5385	4.5000	4.2000	4.5000	4.0769
10	4.4167	4.2917	4.2273	4.3600	4.0769	4.2609	4.1852	2.6296	4.0833	4.2500	4.2083	4.2273	4.3636	4.2800	4.3913
11	4.3947	4.4167	4.1613	4.1212	4.3235	4.3636	4.0000	3.7632	4.2121	4.2121	4.3143	4.0000	4.2571	4.1143	4.4286
12	4.3889	4.1304	4.3333	4.3684	4.4286	4.5000	3.8000	3.5238	3.9500	4.6875	4.7895	4.1875	4.7222	4.7222	4.1765
13	4.6923	4.6923	4.7500	4.5500	4.6471	4.1765	3.5263	3.7222	4.6000	4.7857	4.9412	4.4000	4.8125	4.5556	4.5000
14	3.9091	4.2143	4.1667	4.1818	4.5000	4.4545	3.9412	2.5333	4.0000	4.3000	4.9167	3.5000	4.4545	4.7000	4.4167
15	4.5455	4.6154	4.6667	4.8462	4.4286	4.3636	3.8571	4.0000	4.6667	4.2727	4.2727	4.4545	4.3333	4.4000	4.2500
16	4.5714	4.7059	4.6000	4.6000	4.7273	4.5000	4.1905	3.1364	4.2857	4.6818	4.6500	4.6429	4.6667	4.8421	4.7000
17	4.2400	4.4000	4.2609	4.3077	4.3913	4.3200	4.0000	2.6538	4.1739	4.4545	4.3600	4.0000	4.3462	4.4400	4.2609
18	4.4444	4.1111	4.6000	4.3333	4.4167	3.7857	3.8182	4.1429	4.0000	4.1667	4.8889	4.7273	4.6364	4.6429	4.5714
19	4.3158	4.2571	3.8889	4.5429	4.0714	4.0000	3.6471	3.1143	3.8400	4.5161	4.4138	4.5333	4.3929	4.3000	3.9500
20	4.4545	4.3846	3.9167	4.3077	4.2857	4.4286	4.2105	3.2353	4.2143	4.5000	4.6667	4.3571	4.5000	4.3750	4.5714
21	4.6000	4.6154	4.6111	4.7619	4.7500	4.5000	3.4211	3.6471	4.0556	4.7500	4.8750	4.2667	4.8235	4.8500	4.5556
22	4.6800	4.6296	4.5455	4.7931	4.7586	4.5000	3.8846	3.1379	4.1765	4.3750	4.6000	4.3889	4.8400	4.8400	4.7143
23	4.3548	4.6071	4.2500	4.6429	4.2222	4.4231	4.4138	2.0357	4.3077	4.2143	4.4483	4.1852	4.5556	4.3077	4.2759
Total	4.4165	4.4369	4.2940	4.4729	4.4282	4.3117	3.9694	3.1357	4.1401	4.4236	4.5237	4.3066	4.4960	4.4680	4.3930

Table I 64: Rating for UCT for Question C3

	B. University of Cape Town	1. Very Poor		2. Poor		3. Average		4. Good		5. Excellent		6. I don't know		No response	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
1	Communication from the university	12	2	12	2	38	7	104	20	96	18	225	43	33	6
2	Financial Assistance (loans or bursaries or cost of fees)	4	1	12	2	38	7	97	19	109	21	228	44	32	6
3	Reputation of the institution	3	1	10	2	40	8	114	22	109	21	197	38	47	9
4	The career and qualifications offered	4	1	7	1	32	6	127	24	147	28	166	32	37	7
5	Studying at that university will lead me to employment	3	1	11	2	35	7	97	19	156	30	179	34	39	8
6	Positive feedback from university students attending that university	13	3	17	3	44	8	91	18	132	25	183	35	40	8
7	The university is near my home	127	24	51	10	38	7	62	12	51	10	146	28	45	9
8	The university is far away from my home	34	7	36	7	34	7	75	14	166	32	130	25	45	9
9	Quality of life while studying (university atmosphere, entertainment or being with friends studying at the same university)	11	2	10	2	54	10	97	19	110	21	198	38	40	8
10	Security	4	1	4	1	30	6	103	20	138	27	199	38	42	8
11	Quality education (includes quality of teaching staff)	1	0	6	1	31	6	107	21	139	27	178	34	58	11
12	Sports	3	1	10	2	47	9	94	18	100	19	221	43	45	9
13	Infrastructure of the university (facilities e.g. library, laboratories, computer labs, accommodation etc.)	3	1	6	1	28	5	102	20	155	30	180	35	46	9
14	Seeing successful graduates of the university	6	1	7	1	34	7	94	18	154	30	182	35	43	8
15	The university will allow me to be independent	4	1	9	2	29	6	99	19	132	25	204	39	43	8

Table I 65: Rating for Fort Hare for Question C3

	C. University of Fort Hare	1. Very Poor		2. Poor		3. Average		4. Good		5. Excellent		6. I don't know		No response	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
1	Communication from the university	8	2	22	4	37	7	53	10	43	8	324	62	33	6
2	Financial Assistance (loans or bursaries or cost of fees)	8	2	20	4	38	7	48	9	48	9	327	63	31	6
3	Reputation of the institution	8	2	19	4	38	7	68	13	47	9	289	56	51	10
4	The career and qualifications offered	5	1	9	2	41	8	89	17	68	13	268	52	40	8
5	Studying at that university will lead me to employment	5	1	13	3	42	8	75	14	75	14	269	52	41	8
6	Positive feedback from university students attending that university	14	3	17	3	52	10	55	11	52	10	287	55	43	8
7	The university is near my home	99	19	42	8	40	8	49	9	34	7	213	41	43	8
8	The university is far away from my home	37	7	28	5	38	7	59	11	97	19	215	41	46	9
9	Quality of life while studying (university atmosphere, entertainment or being with friends studying at the same university)	17	3	17	3	46	9	55	11	53	10	289	56	43	8
10	Security	7	1	5	1	29	6	77	15	73	14	283	54	46	9
11	Quality education (includes quality of teaching staff)	3	1	7	1	37	7	74	14	70	13	271	52	58	11
12	Sports	7	1	14	3	45	9	58	11	63	12	286	55	47	9
13	Infrastructure of the university (facilities e.g. library, laboratories, computer labs, accommodation etc.)	2	0	10	2	35	7	72	14	91	18	265	51	45	9
14	Seeing successful graduates of the university	9	2	14	3	33	6	72	14	73	14	274	53	45	9
15	The university will allow me to be independent	7	1	12	2	35	7	76	15	66	13	281	54	43	8

Table I 66: Rating for Witswatersrand for Question C3

	D. University of Witswatersrand	1. Very Poor		2. Poor		3. Average		4. Good		5. Excellent		6. I don't know		No response	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
1	Communication from the university	12	2	21	4	26	5	108	21	58	11	261	50	34	7
2	Financial Assistance (loans or bursaries or cost of fees)	9	2	13	3	49	9	83	16	75	14	258	50	33	6
3	Reputation of the institution	8	2	8	2	37	7	89	17	93	18	236	45	49	9
4	The career and qualifications offered	7	1	14	3	48	9	102	20	108	21	201	39	40	8
5	Studying at that university will lead me to employment	6	1	9	2	46	9	89	17	104	20	224	43	42	8
6	Positive feedback from university students attending that university	11	2	18	3	42	8	73	14	95	18	238	46	43	8
7	The university is near my home	114	22	44	8	44	8	54	10	49	9	169	33	46	9
8	The university is far away from my home	42	8	34	7	37	7	79	15	126	24	158	30	44	8
9	Quality of life while studying (university atmosphere, entertainment or being with friends studying at the same university)	12	2	17	3	59	11	74	14	74	14	241	46	43	8
10	Security	6	1	3	1	35	7	102	20	107	21	221	43	46	9
11	Quality education (includes quality of teaching staff)	1	0	8	2	38	7	89	17	106	20	218	42	60	12
12	Sports	6	1	10	2	45	9	86	17	94	18	236	45	43	8
13	Infrastructure of the university (facilities e.g. library, laboratories, computer labs, accommodation etc.)	3	1	9	2	28	5	97	19	115	22	220	42	48	9
14	Seeing successful graduates of the university	10	2	12	2	38	7	95	18	98	19	221	43	46	9
15	The university will allow me to be independent	9	2	12	2	33	6	88	17	95	18	238	46	45	9

Table I 67: Rating for Stellenbosch for Question C3

	E. University of Stellenbosch	1. Very Poor		2. Poor		3. Average		4. Good		5. Excellent		6. I don't know		No response	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
1	Communication from the university	8	2	19	4	32	6	59	11	49	9	322	62	31	6
2	Financial Assistance (loans or bursaries or cost of fees)	11	2	22	4	37	7	63	12	52	10	303	58	32	6
3	Reputation of the institution	7	1	15	3	45	9	60	12	60	12	286	55	47	9
4	The career and qualifications offered	7	1	17	3	32	6	87	17	77	15	259	50	41	8
5	Studying at that university will lead me to employment	8	2	12	2	40	8	76	15	73	14	273	53	38	7
6	Positive feedback from university students attending that university	13	3	13	3	48	9	75	14	52	10	277	53	42	8
7	The university is near my home	108	21	47	9	40	8	43	8	32	6	207	40	43	8
8	The university is far away from my home	33	6	38	7	33	6	65	13	99	19	208	40	44	8
9	Quality of life while studying (university atmosphere, entertainment or being with friends studying at the same university)	8	2	16	3	51	10	63	12	54	10	287	55	41	8
10	Security	3	1	9	2	33	6	78	15	84	16	269	52	44	8
11	Quality education (includes quality of teaching staff)	2	0	8	2	32	6	83	16	75	14	263	51	57	11
12	Sports	6	1	17	3	38	7	67	13	65	13	283	54	44	8
13	Infrastructure of the university (facilities e.g. library, laboratories, computer labs, accommodation etc.)	4	1	15	3	34	7	82	16	81	16	257	49	47	9
14	Seeing successful graduates of the university	10	2	17	3	41	8	77	15	66	13	271	52	38	7
15	The university will allow me to be independent	11	2	10	2	30	6	83	16	63	12	279	54	44	8

Table I 68: Rating for Rhodes for Question C3

	F. University of Rhodes	1. Very Poor		2. Poor		3. Average		4. Good		5. Excellent		6. I don't know		No response	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
1	Communication from the university	13	3	13	3	27	5	58	11	42	8	336	65	31	6
2	Financial Assistance (loans or bursaries or cost of fees)	13	3	17	3	48	9	39	8	51	10	319	61	33	6
3	Reputation of the institution	3	1	16	3	39	8	57	11	53	10	299	58	53	10
4	The career and qualifications offered	10	2	17	3	28	5	82	16	67	13	275	53	41	8
5	Studying at that university will lead me to employment	7	1	10	2	49	9	56	11	73	14	281	54	44	8
6	Positive feedback from university students attending that university	12	2	10	2	48	9	65	13	49	9	292	56	44	8
7	The university is near my home	101	19	41	8	32	6	53	10	25	5	222	43	46	9
8	The university is far away from my home	35	7	29	6	40	8	60	12	95	18	215	41	46	9
9	Quality of life while studying (university atmosphere, entertainment or being with friends studying at the same university)	12	2	21	4	36	7	61	12	49	9	297	57	44	8
10	Security	4	1	13	3	27	5	82	16	71	14	280	54	43	8
11	Quality education (includes quality of teaching staff)	3	1	3	1	29	6	74	14	74	14	279	54	58	11
12	Sports	8	2	10	2	45	9	65	13	65	13	281	54	46	9
13	Infrastructure of the university (facilities e.g. library, laboratories, computer labs, accommodation etc.)	3	1	9	2	32	6	79	15	80	15	271	52	46	9
14	Seeing successful graduates of the university	7	1	11	2	41	8	63	12	70	13	284	55	44	8
15	The university will allow me to be independent	8	2	10	2	29	6	72	14	71	14	283	54	47	9

Table I 69: Rating for Pretoria for Question C3

	G. University of Pretoria	1. Very Poor		2. Poor		3. Average		4. Good		5. Excellent		6. I don't know		No response	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
1	Communication from the university	4	1	18	3	24	5	108	21	128	25	205	39	33	6
2	Financial Assistance (loans or bursaries or cost of fees)	8	2	10	2	38	7	108	21	112	22	208	40	36	7
3	Reputation of the institution	4	1	14	3	42	8	106	20	103	20	201	39	50	10
4	The career and qualifications offered	4	1	14	3	35	7	126	24	133	26	164	32	44	8
5	Studying at that university will lead me to employment	6	1	11	2	44	8	91	18	148	28	177	34	43	8
6	Positive feedback from university students attending that university	6	1	15	3	37	7	97	19	120	23	201	39	44	8
7	The university is near my home	117	23	48	9	46	9	69	13	51	10	143	28	46	9
8	The university is far away from my home	38	7	32	6	46	9	83	16	140	27	135	26	46	9
9	Quality of life while studying (university atmosphere, entertainment or being with friends studying at the same university)	9	2	15	3	46	9	99	19	95	18	214	41	42	8
10	Security	6	1	5	1	28	5	102	20	136	26	198	38	45	9
11	Quality education (includes quality of teaching staff)	0	0	2	0	36	7	113	22	137	26	176	34	56	11
12	Sports	3	1	12	2	34	7	105	20	116	22	208	40	42	8
13	Infrastructure of the university (facilities e.g. library, laboratories, computer labs, accommodation etc.)	2	0	7	1	26	5	110	21	147	28	183	35	45	9
14	Seeing successful graduates of the university	11	2	8	2	28	5	124	24	132	25	174	33	73	14
15	The university will allow me to be independent	6	1	10	2	31	6	107	21	127	24	198	38	41	8

Table I 70: Rating for Zululand for Question C3

	H. University of Zululand	1. Very Poor		2. Poor		3. Average		4. Good		5. Excellent		6. I don't know		No response	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
1	Communication from the university	6	1	8	2	38	7	134	26	149	29	150	29	35	7
2	Financial Assistance (loans or bursaries or cost of fees)	2	0	16	3	44	8	110	21	160	31	155	30	33	6
3	Reputation of the institution	12	2	23	4	45	9	105	20	133	26	149	29	53	10
4	The career and qualifications offered	7	1	11	2	29	6	141	27	148	28	141	27	43	8
5	Studying at that university will lead me to employment	5	1	13	3	35	7	111	21	160	31	149	29	47	9
6	Positive feedback from university students attending that university	14	3	11	2	47	9	107	21	142	27	152	29	47	9
7	The university is near my home	43	8	20	4	49	9	87	17	166	32	108	21	47	9
8	The university is far away from my home	85	16	44	8	40	8	80	15	105	20	113	22	53	10
9	Quality of life while studying (university atmosphere, entertainment or being with friends studying at the same university)	10	2	11	2	46	9	111	21	132	25	165	32	45	9
10	Security	6	1	10	2	20	4	119	23	158	30	158	30	49	9
11	Quality education (includes quality of teaching staff)	6	1	10	2	26	5	123	24	157	30	139	27	59	11
12	Sports	6	1	13	3	28	5	118	23	138	27	168	32	49	9
13	Infrastructure of the university (facilities e.g. library, laboratories, computer labs, accommodation etc.)	7	1	13	3	26	5	115	22	167	32	144	28	48	9
14	Seeing successful graduates of the university	6	1	12	2	29	6	125	24	169	33	133	26	46	9
15	The university will allow me to be independent	4	1	12	2	21	4	109	21	172	33	154	30	48	9

Table I 71: A Comparison of the Positive (good and excellent) responses across universities regarding the factors

		A UKZN	B UCT	C Fort Hare	D Wits	E Stell	F Rhod	G Pret	H Zulu
1	Communication from the university	68%	38%	18%	32%	21%	19%	45%	54%
2	Financial Assistance (loans or bursaries or cost of fees)	69%	40%	18%	30%	22%	17%	42%	52%
3	Reputation of the institution	60%	43%	22%	35%	23%	21%	40%	46%
4	The career and qualifications offered	72%	53%	30%	40%	32%	29%	50%	56%
5	Studying at that university will lead me to employment	68%	49%	29%	37%	29%	25%	46%	52%
6	Positive feedback from university students attending that university	62%	43%	21%	32%	24%	22%	42%	48%
7	The university is near my home	61%	22%	16%	20%	14%	15%	23%	49%
8	The university is far away from my home	39%	46%	30%	39%	32%	30%	43%	36%
9	Quality of life while studying (university atmosphere, entertainment or being with friends studying at the same university)	55%	40%	21%	28%	23%	21%	37%	47%
10	Security	65%	46%	29%	40%	31%	29%	46%	53%
11	Quality education (includes quality of teaching staff)	68%	47%	28%	38%	30%	28%	48%	54%
12	Sports	58%	37%	23%	35%	25%	25%	43%	49%
13	Infrastructure of the university (facilities e.g. library, laboratories, computer labs, accommodation etc.)	67%	49%	31%	41%	31%	31%	49%	54%
14	Seeing successful graduates of the university	68%	48%	28%	37%	28%	26%	47%	57%
15	The university will allow me to be independent	63%	44%	27%	35%	28%	28%	45%	54%

Table I 72 : A Comparison of the Negative (poor and very poor) responses across universities regarding the factors

		A UKZN	B UCT	C Fort Hare	D Wits	E Stell	F Rhod	G Pret	H Zulu
1	Communication from the university	1%	5%	6%	6%	5%	5%	4%	3%
2	Financial Assistance (loans or bursaries or cost of fees)	1%	3%	5%	4%	6%	6%	3%	3%
3	Reputation of the institution	2%	3%	5%	3%	4%	4%	3%	7%
4	The career and qualifications offered	2%	2%	3%	4%	5%	5%	3%	3%
5	Studying at that university will lead me to employment	2%	3%	3%	3%	4%	3%	3%	3%
6	Positive feedback from university students attending that university	3%	6%	6%	6%	5%	4%	4%	5%
7	The university is near my home	10%	34%	27%	30%	30%	27%	32%	12%
8	The university is far away from my home	30%	13%	13%	15%	14%	12%	13%	25%
9	Quality of life while studying (university atmosphere, entertainment or being with friends studying at the same university)	5%	4%	7%	6%	5%	6%	5%	4%
10	Security	2%	2%	2%	2%	2%	3%	2%	3%
11	Quality education (includes quality of teaching staff)	1%	1%	2%	2%	2%	1%	0%	3%
12	Sports	2%	3%	4%	3%	4%	3%	3%	4%
13	Infrastructure of the university (facilities e.g. library, laboratories, computer labs, accommodation etc.)	2%	2%	2%	2%	4%	2%	2%	4%
14	Seeing successful graduates of the university	2%	3%	4%	4%	5%	3%	3%	3%
15	The university will allow me to be independent	2%	3%	4%	4%	4%	3%	3%	3%