Using factor analysis to determine why students select UWC as higher education institute

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KEYWORDS

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Factor analysis

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Polychoric correlation

Principal components

Eigenvalue

Varimax rotation

Factor similarity

Congruence coefficient

Bootstrap factor analysis

LIST OF ABBERVIATIONS

UWC - University of the Western Cape

F1 - the first factor

F2 - the second factor

F3 - the third factor

KMO - Kaiser-Meyer-Olkin

ABSTRACT

This study investigates the most important reasons behind the first-year students' decision to select University of the Western Cape (UWC) as higher education institution. These reasons were organized into a few factors for easy interpretation.

The data to be analyzed for this project is a subsection of the data collected during the orientation period of 2008. During the orientation week of 2008, the questionnaires were completed on a voluntary basis by new first-year students. All questionnaires were anonymously completed and therefore the data does not contain any information that could be linked to any individual. For the purpose of this study, only the black African and coloured students were considered. The other racial groups were not analyzed due to too small sample sizes. Questionnaires with missing information on the reasons for selecting UWC were not analyzed. We ended up with a sample of size 600. The data were statistically analyzed, using descriptive statistics, bivariate analyses, factor analysis, coefficient of congruence and bootstrap factor analysis.

The results indicated that the most important reasons affecting students to choose UWC were identified as good academic reputation, family member's advice, UWC graduates are successful and UWC graduates get good jobs. The least important reasons were found to be not accepted anywhere, parents / family members graduated from UWC, recruited by UWC and wanted to study near to home. The results also indicated that there were significant differences among students according to population groups, parent's monthly income and grade 12 average. Factor analysis of 12 variables yielded three extracted factors upon which student decisions were based. Similarities of these three factors were tested, and a high similarity among demographic charac-

teristics and grade 12 average were found.

Additional analyses were conducted to measure the accuracy of factor analyses models constructed using Spearman and Polychoric correlation matrices. The results indicated that both correlation matrices were unbiased, with higher variance and higher loadings when the Polychoric correlation matrix was used to construct a factor analysis model for categorical data.

DECLARATION

I declare that *Using factor analysis to determine why students select UWC as higher education institute* is my own work, that it has not been submitted for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged by complete references.

Abuelgasim Ahemd Atta-Almanan Osman April, 2009

SIGNED .....

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Chapter 1

Introduction

1.1 Introduction

Over the last few decades, the higher education sector has faced increasingly competitive market structures which threaten the survival of existing educational institutions. This scenario is expected to become even more intensified in the future (Mario and Helena, 2007).

The South African higher education market, for both domestic and international students, has grown greatly during the last years. This is a direct result of governments' commitment to create a more market-orientated form of organization for the higher education sector and the willingness of universities to enter the competition for prospective students.

Intense competition in the higher education sector in South Africa has forced many universities to become entrepreneurs and implement marketing strategies in recruiting students. The use of consulting companies or outsourcing is one of the most rapidly growing methods for attracting students (Crowley, 2004).

Each year high school graduates are faced with the problem of having to decide on future career paths. Deciding to continue or not to continue with higher education and the choice of which institution to attend are two critical decisions that students make in their lives (Johnson and Chapman, 1979). For those who consider attending

a university, the final decision in the selection process is probably affected by many factors.

Studies on the university selection process stated that numerous factors influence potential students in their decision to attend a particular institution. Identifying these factors which students consider is a matter of importance to university administrators who are concerned with the long-term effectiveness of their institutions' enrolment practices. Several studies investigated which factors influence students in their decision of which university or college to attend. According to Raley (1972, as cited in Carrington and Sedlacek, 1975) four general factors have been identified related to students' college choice: first factors internal to the institution (e.g., academic reputation and prestige); second factors external to the institution (e.g., location and proximity to students' home); third human influences (relatives, friends, counselors); and fourth individual factors (personal and family finances). More specifically, Murphy (1981) indicated that the academic reputation, tuition costs and the influence of brothers and friends were factors. Shanka, Quintal and Taylor (2005) concluded that proximity to home, quality/variety of education, cost of living/tuition, friends' studies, family recommendation, and safety can influence the final decision. Studies have shown that these factors and many others such as traditions and activities at an institution, affect a students choice process and each contribute differently to the overall decision. Washburn (2002) contended that the influences of these factors are beyond the control of the institution.

Research also shows that students also differ among themselves by the demographic characteristic factors to particular selection factors based on: gender (Litten, 1982 and Hamrick (2007); population group (Lewis and Morrison, 1975; Smith and Matthews, 1990 and Hamrick, 2007) and family income (Munday, 1976; Hartle and Stedman, 1986 and Kinzie et al., 2004). Washburn (2002) contended that the influences of these factors are beyond the control of the institution.

The present study tries to find out which reasons contribute to the decisions of the students when they choose the University of the Western Cape (UWC) as their

place of study, and if we can organize these reasons into a few factors that could be easily interpreted. These factors could be used then as brief profile of influence on university choice. The study was conducted at UWC, one of the larger universities in South Africa, located in the south of the country. The first-year students' survey 2008 developed by the Student Development and Support Center of UWC was used in this study. A self-administered questionnaire was used to capture the information from the students. A four point-scale was used to indicate the importance of reasons to select UWC.

1.2 Problem statement

The decision to select a university or college is one of the most important and difficult decisions that students will have to make in their life. The number of universities and colleges in the country makes the decision quite difficult for high school learners. In addition there are many factors that may make the decision even more difficult for high school learners. They also have to consider advice from family, teachers and friends, distance from home, the reputation of the tertiary institution and tuition cost.

1.3 Research purpose and objectives

The purpose of this study is to find the most important reasons behind the first-year student's decision to select UWC as higher education institution, and we wanted to know if the many reasons that influence the choice of UWC could be organized into a few factors that could easily be interpreted. The following reasons were studied: family member's advice, teacher's advice, friend's advice, academic reputation, financial assistance, tuition fee, distance from home, the graduation success rate, affiliation to the university, university recruitment, employment opportunity after completion of the studies and no other choice. The researcher created an instrument to organize these twelve reasons into a few categories (factors). The study further sought to analyze

differences in the factors toward demographic characteristics and grade 12 average. The following objectives were identified to accomplish the purpose of the study:

1. To profile first-year student's decisions to select UWC as higher education institution.
2. To determine if reasons for selecting UWC as higher education institution differ among demographic characteristics and grade 12 average.
3. To identify key factors behind a first-year student's decision to select UWC as higher education institution.
4. To determine if factors for selecting UWC as higher institution is similar among demographic characteristics and grade 12 average.

1.4 Research questions

The study examined the following questions:

1. What are the most and least important reasons influencing first-year students to select UWC?
2. What are the factors behind the first-year student's decisions to attend UWC?

1.5 Significance of the study

This study tries to find the factors that influence the university selection process for black African and coloured students at UWC. The study has significance for current practice as well as for future research in higher education. The staff in the admissions offices at colleges and universities might benefit from the information gathered in this study. Future studies could be conducted using other minority groups (e.g. White, Indian, and Asian). They could also focus on comparisons between student bodies at different universities which have a variety of demographic factors, and therefore possibly different selection processes.

1.6 Methodology

The population for this study consisted of all first-time entering first-year students (full-time) at UWC. The data were collected through a survey developed by the Student Development and Support Center during the orientation week. A sample of size 600 was used. This sample consisted only of black African and coloured students, the other racial groups were not analyzed due to their sample size being too small. Questionnaires without information on "reasons for choosing UWC" were discarded from study sample. Data on demographic characteristics, grade 12 average and reasons that influenced student decision making with a four-point Likert scale with the following responses: very important, somewhat important, important, not important were collected.

The analyses were carried out using descriptive statistics, bivariate analyses, factor analyses, coefficient of congruence and bootstrap factor analyses. The statistical software packages SPSS and SAS were used to manage and analyze the data.

1.7 Limitations

The limitations of this study were related to the sample used in the study. They include the following:

1. The students participating in the study will be limited to first-time entering full-time students who attended the orientation week.

2. The study focused only on the black African and coloured students who completed and handed back the questionnaire.

3. The study used the survey created by the Student Development and Support Center which may not have addressed all factors that influenced students in the university selection process.

4. The source of data for this study was based only on the responses from one institution's accepted first-year group for one particular year.

1.8 Conclusion

This study is an application study examining how first-year students made a decision to attend UWC as higher education institution. The study used a sample of 600 black African and coloured students to identify the reasons that influenced students to choose UWC and if we can organize these reasons in a few factors that could be easily interpreted using a factor analysis model with two different correlation matrices.

This study is organized in five chapters. The first chapter introduces the background related to the topic, the purpose of the study, and the significance of the study. The second chapter includes a summary of findings from the literature. The research design and methodology are discussed in chapter three. In this chapter the researcher articulates the research hypotheses and instruments used in data collection and analysis. In addition, the data collection process and data editing is described. Chapter four provides the results of the study. The conclusions, recommendations and the comparison between the research findings and the literature reviews are presented in Chapter five.

Chapter 2

Literature review

2.1 Introduction

In this chapter we review literature related to factors influencing students' selection of a university for higher education studies. A review of the literature suggests two primary focal areas of research pertaining to the choice of university. The first research area identified stems from the majority of literature reviewed and identifies specific factors that influence the choice of university (Murphy, 1981; Erdmann, 1983; Kallio, 1995; Massey, 1997; Broekemier, 2002). The second research area identified is a subset of the first research area, and focuses on the relationship between specific factors mentioned above and individual demographic characteristics, for example gender, age, race, family income and grade 12 average (James et al., 1999; Hayden, 2000; and Hossler and Gallagher, 1987). The intention of this study is to focus on both areas of the literature, and to investigate whether the research is applicable to UWC. The first part identifies the most important factors that influenced students to select their university and the second part focuses on the relationship between these factors for selecting a university and the individual demographic characteristics.

2.2 Factors influencing university choice

A long list of factors has been shown to influence students' university choice. In this study we will only cover the following factors: family advice, teacher advice, friend advice, academic reputation, financial assistance, tuition fees, distance from home, university graduates are successful, parent/family member graduated from the university, university recruitment, employment opportunity after completion of the studies and no other university options.

2.2.1 Advice from family members

University selection is not an easy decision to make. Deciding to continue or not to continue with higher education and the choice of which institution to attend are two critical decisions that students make in their lives. For those who consider attending a university, the family influence and advice might be of great effect and importance. Hossler et al. (1998) found that parents, other family members and peers, have the greatest influence on students' decisions. In a study that recounted the findings of annual studies (Coordinated by the Cooperative Institutional Research Program) at the University of Southern California (Dillon, 1995); it found that 31.6% of the freshmen at the University of Southern California reported that the university was the first choice because their parents wanted that. Erdmann (1983) found that the parents' recommendation was one of the most important factors that influenceD college choice. Carnegie Foundation (1986) surveyed 100 high school seniors; the study concluded that parents contribute about 32% of the potential student's selection process. Matthay (1989), Kern (2000) and Fielitz (2001) found that one of the most important factors that influence college choice appears to be parents. In a study that examined the process of college choice decision-making among students in the Dallas County Texas Community College District (Massey, 1997). The study found that the decision-making process was influenced greatly (77%) by parents.

There are a number of reasons why parents play such an important role. Bouse

and Hossler (1991) found that parents play an important role in decisions about saving for post-secondary education. Carpenter and Fleishman (1987) revealed that as the level of parents encouragement increases, student achievement also increases. Bers and Galowich (2002) found that parents engage in a variety of college search and choice activities. Smith and Bers (1989) showed that parents are involved in information gathering and the decision process, but are not necessarily decision-makers.

Adebayo (1995) examined gender differences in the vocational college choice process and found that relatives and friends are major sources of information about college choice despite gender. In a study on the college choice process of African-American and Hispanic women (Butner et al., 2001), it was found that family influenced their decision to attend college. Peiter et al. (2004) found that 10% of the respondents indicated parents occupation is a strong influence on their decision.

2.2.2 Teacher's advice

In a study examining factors influencing student college choice, Erdmann (1983) found that a high school counselor is one of the most important factors that influence college choice. Carnegie Foundation(1986) surveyed 100 high school seniors; the study concluded that teachers contribute for about 6% of the potential students selection process. Matthay (1989) found that school guidance counselors are one of the four most helpful resources for students in the college search process. Johnson et al. (1991) found that from 3708 first-year students, the student's high school counsellor is one of the sources of college information. In a study that examined the process of college choice decision-making among students in the Dallas County Texas Community College District (Massey, 1997), it was found that the decision-making process is influenced by 31% from high school teachers. In a study conducted by College of Saint Benedict and Saint John's University in USA (2003), it was found that more than 40% of all new students said that the advice of a teacher or a guidance counsellor plays an important role in their college choice. Kinzie et al. (2004) found that influence of teachers, peers and counsellors seemed to replace that of parents and other family members.

2.2.3 Friend's advice

Draper's (1976) study reported that the recommendations of family members, friends, teachers and guidance counsellors are important factors that influence the choice of college. Murphy (1981) found that one of the factors that influence a college or university choice process is brothers and friends. Johnson et al. (1991) found that from 3708 first-year students, friends are a major influencing factor when choosing a college. Boatwright and Ching (1992) reported that peer influence is the most important factor in college choice. Hazzard (1996) found that white students, when making decisions to attend historically black colleges and universities, consulted a friend. In the Dallas County Texas Community College District research project (Massey, 1997) found that the decision-making process is influenced by friends (54%). Broekemier and Seshadri (1999) studied differences in college choice criteria between deciding students and their parents; the study found that students friends influenced decision making on college choice more than their parents. Hayden (2000) found that opinions of friends and former students weigh heavily on the minds of black African college applicants when deciding between colleges. A study conducted on urban high school students (Kern, 2000) found that friends were one of the most important factors that influenced college choice. Patton (2000) investigated the decision-making processes of international students and found that among Malaysian students, the most popular and influential information was obtained by talking to friends. Peiter et al. (2004) found that 9% of respondents indicated that the recommendations of friends and relatives influenced them strongly when choosing a major.

2.2.4 Academic reputation

Holland (1958) found that the most influential factor for both men and women in the selection of an institution was a good academic reputation. Bowers and Pugh (1973) surveyed four thousand Indiana University freshmen and their parents to identify and to rank 22 influences that were considered in the selection process. The study found

that both parents and students rated academic reputation of the university as the most important factor in the selection process. In a study on factors that influenced applicants decisions to attend Tufts University in USA (1986), it was found that academic reputation was frequently cited as an important factor in the final college choice by accepted applicants. Sanders (1986) investigated freshman enrolment at Washington State University using the admissions offices online recruitment device; it was found that one of the factors that influenced the final decision-making process was academic reputation. Murphy (1981), Erdmann (1983), Kern (2000), Whitehead et al. (2002) and Veloutsou et al. (2004) found that academic reputation was one of the factors that influenced a college or university choice process. Smith and Matthews (1990) found that students considered academic reputation as one of the most important factors to consider when choosing a college. Soutar and Turner (2002) found that academic reputation was one of the most important factors determining university preference.

There are a number of reasons why academic reputation impacts on the university choice. Johnson et al. (1991) found that academic reputation was one of the top factors that impacted college choice. Sevier (1993) studied the recruitment of African-Americans as undergraduate students, the study examined why black African chose a specific college; it was found that the reputation of the college was an important factor when the black African students chose a college. Kallio's (1995) study found that the academic environmental characteristics was one of the greatest factors that influenced college choice. McDonough and Antonio (1998) found that geography, religion, an institution's social reputation and familial preference were strong factors in students' choice of historically black colleges and universities. Gabert et al. (1999) found that an academic support service was one of the factors that influenced decisions when choosing a college.

Dillon's (1995) study found that 68.4% of the freshmen at the University of Southern California in USA reported that the university was the first choice because of its high-quality academic reputation. Howat (1999) investigated the factors that influenced institutional choice among student-athletes. The study found that academic

reputation was one of the factors that influenced prospective student-athletes to attend East Tennessee State University. Fielitz (2001) investigated the factors influencing the student decisions to attend the United State Military Academy. The study showed that one of the most important factors in institutional selection was academic reputation.

In a study of comparing second-year and fourth-year adult students on motivations to attend college and the importance of choice criteria (Broekemier, 2002), it was found that the faculty's reputation can be one of the factors that influence the choice of college. According to the College of Saint Benedict and Saint John's University (2003) nearly three-quarters of all new entering students said that the academic reputation of the College of Saint Benedict and Saint John's University was a very important factor which influenced their decision to enroll. The Canadian undergraduate survey consortium (2004) reported that the second reason of the top three reasons on which university to attend was the quality of the academic program (18%), specific career-related programs (21%) and proximity to home (14%). Hamrick (2007) found that academic reputation was one of the most important factors, ranking as one of the top three enrollment factors for students, with at least two-thirds of students rating it as important after the tuition cost and financial aid assistance. In a study conducted by Higher Education Research Institute University of California in USA (2007), it was found that 57.4% of freshmen indicated that a very good academic reputation was the top reason for choosing their college. According to the American freshman report (2009) about 63% of the freshmen indicated that the good academic reputation of college was a very important reason behind their decision to attend the current college.

2.2.5 Financial assistance

Litten's (1982) study showed that black African students were more likely than white and Hispanic students to be interested in financial assistance offered. Jackson and Chapman (1984) found that when deciding between a first choice institution and a second choice institution, students considered offered financial aid as being very im-

portant to their college choice decision. Abraham and Jacobs (1990), Clark and Crawford (1992) and Sevier (1993) found that African-Americans depend more on financial assistance when considering a particular institution. Paulsen (1990) examined several studies conducted by a number of different colleges and universities regarding college choice and found that financial aid was an important factor when deciding to enroll at a particular institution.

A number of studies identified that the financial aid had a significant impact on university choice. Flint (1993) found that financial aid had an indirect, but significant effect on the tuition levels of the college under consideration. Dillon's (1995) study found that 48.9% of the freshmen at the University of Southern California reported that the university was the first choice because the University offered financial assistance. Kallio (1995) found that financial aid was one of the greatest factors that influenced college choice. Geraghty (1997) found that 33% of first-year students reported financial assistance as very important in selecting a college, while the number of freshmen who reported they had selected a college based on low tuition cost was 31%. In a study on identification of factors influencing matriculation decisions by dental school applicants (Whitehead et al., 2002), it was found that financial aid was one of the factors that contributed to an applicant's decision on where to attend. Hamrick (2007) found that financial aid joined with tuition cost was the top factor influencing enrolment.

2.2.6 Tuition fee

In an examination of twenty-five studies, examining the connection between tuition and college enrolment (Leslie and Brinkman, 1988), it was found that all the students were sensitive to tuition cost. Bowers and Pugh (1973) identified tuition cost as an important factor that influenced the college choice. Tillery and Kildergaard (1973), Murphy (1981) and Broekemier (2002) stated that the tuition cost of an institution was more influential on whether a student attends college. Mundel (1974) found that the college tuition cost was an important factor, especially for lower-income students. Spies (1978) found that many students were discouraged from applying to high-priced

institutions because of financial concerns. Sanders (1986) investigated freshman enrolment at Washington State University using the admission's offices online recruitment device, it was concluded that the tuition cost was one of the factors that influenced the final decision-making process when choosing a college. Smith and Matthews (1990) and Hamrick (2007) found that students considered reasonable tuition cost of the institution as one of the most important factors when considering college choice.

Paulsen (1990) examined several studies conducted by a number of different colleges and universities regarding college choice and found that the tuition cost was important when deciding to enroll at a particular institution. Johnson et al. (1991) found that one of the top factors that influenced college choice was the tuition cost. Sevier (1993) studied the recruitment of black African as undergraduate students. The study examined why black African chose a specific college; it was found that one of the top factors that influenced black African students when choosing a college was the total cost of tuition. Weiler (1996) found that the institutional choices were influenced by the net tuition costs. Massey (1997) indicated that low cost contributed for about 55% of the final decision in the process of choosing a college. Cabrera and La Nasa (2000) showed that there was a significant negative relationship between tuition cost increases and enrolment. In a study on identification of factors influencing matriculation decisions by dental school applicants (Whitehead et al., 2002), the study found that tuition cost was rated as one of the most important factors that contributed to an applicants decision on where to attend. Kinzie et al. (2004) reported that in the 1980s, a study of the college choice indicated that students were starting the decision-making process earlier, and that college proximity and tuition cost of attendance remained primary factors in students' choices.

2.2.7 Distance

Holland and Richards (1965) found that proximity to home was an important factor. Lisack (1978) found that the top four reasons for college selections, in order, were: proximity to home, cost of tuition, reputation or prestige of college, and size of college.

Ihlanfeldt (1980) concluded that students whose parents did not attend college were likely to choose a college close to home. Erdmann (1983) and Broekemier (2002) found that a location of the college was one of the factors that influenced the college choice decision. In a study on factors that influenced applicants decisions to attend Tufts University in USA (1986), it was found that location was one of the most frequently cited factors that influenced applicants' decision to attended Tufts University. Paulsen (1990) examined several studies conducted by a number of different colleges and universities regarding college choice and found that size and location of the institution were important when deciding to enroll in a particular institution. Sevier's (1993) study examined why black African chose a specific college, it was concluded that one of the top factors that influenced black African students was geographic location. Massey (1997) found that location to home contributed for about 69% of the ultimate decision of students in the Dallas County Texas Community College District.

In a study on differences in college choice factors among first-year student-athletes (Gabert et al., 1999), it was found that college choice decision was influenced by the location of the school. Howat (1999) found that location was one of the factors that influenced prospective student-athletes to attend East Tennessee State University. In another study on identification of factors influencing matriculation decisions by dental school applicants (Whitehead et al., 2002), it was found that location of the dental school was rated as one of the factors that influenced applicants decision on where to attend. The College of Saint Benedict and Saint John's University (2003) reported that more than half (52%) of all new entering students said that a desire to live close to home was an important factor which influenced their decision to enroll at Saint Benedict or Saint John's University. According to the first-year student survey conducted in Canadian Universities (2004) the third reason of top three reasons of which university to attend, was distance from home (14%). Holdswoth and Nind (2005) found that spatial proximity to home was an important factor that influenced a college choice process. Shanka et al. (2005) found that one of the factors that influenced a college or university choice process was proximity to home. Keskinen et al. (2008) found that

the distance from home played a more important role when a university was selected in Finland.

2.2.8 Successful university graduate

In a study that recounted the findings of annual studies, coordinated by the Cooperative Institutional Research Program of first-year students at the University of Southern California in the USA (1995) found that 53.9% of the first-years reported that the university was the first choice because of the successful university graduates. Patton (2000) found that selecting successful graduates to speak to prospective students in their home worked well as a strategy to recruit prospective students.

2.2.9 Parent/family member graduated from the university

Smith and Matthews (1990) examined the ratings of importance by ethnicity and found that white students considered traditions and activities at an institution more important than black African, Hispanic and other students. Martin and Dixon (1991) examined the factors influencing students' college choices. The study found that there were external and internal factors that influenced college choice and it was also revealed that the education majors tend to be more influenced by family tradition to attend a particular college than business majors. The College of Saint Benedict and Saint John's University (2003) reported that half of all new students indicated that alumni family connection to the colleges was a very important factor which influenced their choice.

2.2.10 University recruitment

A study on recruiting procedures used by colleges and universities; Carnegie Foundation (1986) found that despite many sources to guide students, students still face a gap in information. Galotti and Mark (1994) found that the recruitment process was a vital component for growth at any college or university.

2.2.11 Employment opportunity on completion of studies

Sanders (1986) investigated first-year enrolment at Washington State University using the admission offices' online recruitment device, it was concluded that there were many factors that influenced the final decision-making process. One of these factors was employment opportunity after graduation. Smith and Matthews (1990) found that students considered prospects of landing a job after school as an important factor to consider when choosing a college. Dillon (1995) found that 75% of the first-year students reported that the university was the first choice because the graduates get good jobs. Broekemier (2002) found that getting better jobs was one of most important factors that influenced the choice. Soutar and Turner (2002) suggested that a job prospect was one of the most important determinants of university preference. According to Garma and Yoon (2003), Malaysian and Australian students indicated that the employment rate for graduates was an important factor to consider when selecting a university. The Canadian Undergraduate Survey Consortium (2004) reported that the most important reason for deciding to go to university was to get a good job after graduation. According to the Higher Education Research Institute University of California in USA (2007) about 49.3% of first-year students indicated that graduates who get good jobs was a very important factor in their choice. An American freshman report (2009) found that 52% of the first-year students indicated that: "graduates of this college get good jobs", was a very important reason behind their decision to attend the current college.

2.2.12 No other university options

A first-year student survey in Canadian Universities (2004) found that 8 students in 10 reported that the university they are currently attending was their first choice. According to the American freshman report (2009) about 10% of the first-year students indicated that: "could not afford first choice", was a very important reason behind their decision to attend the current college.

2.3 University choice according to the demographic characteristics and grade 12 average

This section reviews the factors influencing university choice according to the demographic characteristics and grade 12 average.

2.3.1 University choice according to gender

Lewis and Morrison (1975) found differences in the ways men and women made decisions. Women started their selection process earlier than men and applied to more colleges. Braddock (1981) found that females rated that tuition cost, availability of financial aid, academic reputation and parental advice as the most important factors influencing their choice. Males rated that availability of financial aid, college costs, academic reputation and parental advice as the most important factors. Hanson and Litten (1982) found that women and men differed significantly in their college selection processes. Women seemed more affected by parental influence, geographical location, finances and college environment than did men. Litten (1982) found that parental education is a stronger influence than race or gender. Paulsen (1990) found that students are more likely to apply to and attend institutions away from home if they are male, if their parents have college degrees, if they are from at least a middle-income family, or if they are adequately prepared for the academic demands of college. In their study on college choice criteria between students and their parents Broekemier and Seshadri (1999) found that safety and academic issues were more important to female students than male students. James et al. (1999) found that there was no association between gender and student's decisions. Ranero (1999) studied factors that influenced the college choice of Hispanic college students. The study revealed that there was a significant difference in the college choice process of Hispanic students by gender and generational status. Hamrick (2007) found that female students ranked cost, financial aid and academic reputation with higher importance than male students.

2.3.2 University choice according to age group

Howard (1987) found that there was no difference among age groups in reasons for choosing a particular college.

2.3.3 University choice according to population group

Lewis and Morrison (1975) found differences between white students and black students' decision-making processes. Black students tended to consider and make requests from a larger set of institutions than did white students. Draper (1976) found that more than 45 percent of black students surveyed reported that financial aid was an essential element of their college choice processes. Litten (1982) conducted a study on differences in the college selection process based on race of the applicant, the result showed that black students were more likely than the other two ethnic groups (White and Hispanic) to be interested in the availability of financial assistance. Litten's (1982) study also found that black applicants start their college search process later than white applicants. Abraham and Jacobs (1990) found that black students were more likely than white students to agree with the fact that they enrolled in a particular college because of the financial aid that was offered to them. Paulsen (1990) found that black students appeared to consult a greater number of information sources than do white students, though they were less likely to rely solely on information from either family members or friends.

Smith and Matthews (1990) examined the ratings of importance by ethnicity; it was found that white students considered traditions and activities at an institution more important than black, Hispanic and other students. Black and Hispanic students considered scholarships and grants more important than the white students. Clark and Crawford (1992) found that black students depended more on financial assistance when considering a particular institution, because 37% of black students came from families that had an income less than $18,581 per year while only 11% of the families of white students fell within this income category. Hazzard (1996) found that white students

rated the program of study, cost, availability of financial aid, academic reputation, variety of courses, and location as the factors that influenced their decision to attend historically black college or university. The study revealed that white students, when making decisions to attend historically black colleges and universities, consult friends. Hazzard (1996) also found that the most important factors influencing institutional selection among black students, in the order of importance, were: availability of financial aid, program of study, cost, academic reputation, location, and variety of courses. The Ranero (1999) study revealed that there was a significant difference in the college choice process of Hispanic students by ethnic background. Hayden (2000) found that opinions of friends and former students weighed heavily on the minds of black college applicants when deciding between colleges. Hamrick (2007) found that black and Hispanic students tended to rank cost, personal attention and recommendation from family and friends as more important factors compared to white students.

2.3.4 University choice according to family income

Munday (1976) stated that the College tuition costs have the most significant impact on college attendance at the extremes of the income distribution. Leslie et al. (1977) found that lower income students were most likely to rely on information about their college from their high school counsellors. These researchers contrasted that upper income students cited that parents, students, catalogues, college representatives, and private guidance counsellors as sources for information on their college search. Litten (1982) found that parents' income and education was a stronger influence compared to race or gender. Jackson (1982) and Ekstrom (1985) found that socio-economic status had a greater impact on students decisions to attend college than did their racial-ethnic status. Payan et al. (1984) indicated that lower family income leaves many of the students reluctant to attend college that are not close to home. Hartle and Stedman (1986) found that students with low income families have the same choices of institutions as those from middle and upper income families. Hossler and Gallagher (1987) found that students with high socio-economic status were more likely

to go on to college compared to students with a low socio-economic status. Hearn (1988) found that family income was strongly related to college choice. Weiler (1996) found that the effect of student costs declines as parental income increases. Berkner and Chavez (1997) found that fewer low-income students have been able to select universities relative to their peers from higher-income families. Hossler et al. (1998) found that financial aid lowers the net cost of attendance for students. James et al. (1999) found that socio-economic background and geographical location were not strongly related to student decisions. Kinzie et al. (2004) concluded that when students from lower-income families decided to attend college, the role of cost and financial aid in their decision-making increased.

2.3.5 University choice according to grade 12 average

Hossler et al. (1998) found that students' academic abilities and socioeconomic status play a significant role in college decision-making activities. Braxton (1990) found that students of high academic ability were more likely to attend selective institutions as well as out-of-state institutions whereas lower-ability students were more likely to attend less selective in-state institutions.

2.4 Summary

The selection of university for the student is one of the most important decisions in his/her life. The foregoing review of literature identifies several reasons that might have influenced students decision in selecting a university. The number of times a factor was mentioned indicates it appears in several different studies but does not necessarily imply they are more important. Table 2.1 shows a summary of the research on reasons that influenced student's decision for choice of a university.

Table 2.1: Summary of university selection criteria by Author

Family member's advice	Erdmann (1983); Carnegie Foundation (1986); Carpenter and Fleishman (1987); Matthay (1989); Smith and Bers (1989); Bouse and Hossler (1991); Adebayo (1995); Dillon (1995); Massey (1997); Hossler et al. (1998); Kern (2000); Butner et al. (2001); Fielitz (2001); Bers and Galowich (2002); and Peiter et al. (2004).
Teacher's advice	Erdmann (1983); Carnegie Foundation (1986); Matthay (1989); Johnson et al. (1991); Massey (1997); Garma and Yoon (2003).
Friend's advice	Draper (1976); Murphy (1981); Johnson et al. (1991); Boatwright and Ching (1992); Hazzard (1996); Massey (1997); Broekemier and Seshadri (1999); Hayden (2000); Kern (2000); Mulvaney (2000); Patton (2000); and Peiter et al. (2004).
Good academic reputation	Holland (1958); Murphy (1981); Bowers and Pugh (1973); Erdmann (1983); Sanders (1986); Smith and Matthews (1990);Johnson et al. (1991); Sevier (1993); Dillon (1995); Kallio (1995); McDonough and Antonio (1998); Gabert et al. (1999); Howat(1999); Kern (2000); Fielitz (2001); Broekemier (2002); Soutar and Turner (2002); Whitehead et al. (2002); Veloutsou et al. (2004); and Hamrick (2007) .
Offered financial assistance	Litten (1982); Jackson and Chapman (1984); Abraham and Jacobs (1990); Paulsen (1990); Clark and Crawford (1992); Flint (1993); Sevier (1993); Dillon (1995); Kallio (1995); Geraghty (1997); Whitehead et al.(2002); and Hamrick (2007).
Low tuition	Bowers and Pugh (1973); Tillery and Kildergaard (1973); Mundel (1974); Spies (1978); Murphy (1981); Sanders (1986); Leslie and Brinkman (1988); Smith and Matthews (1990); Paulsen (1990); Johnson et al. (1991); Sevier (1993); Weiler (1996); Massey (1997); Cabrera and La Nasa (2000); Broekemier (2002); Whitehead et al. (2002); Kinzie et al. (2004); and Hamrick (2007) .

Continued: Table 2.1.

Wanted to study near home	Holland and Richards (1965); Lisack (1978); Ihlanfeldt (1980); Erdmann (1983); Paulsen (1990); Sevier (1993); Massey (1997); Gabert et al. (1999); Howat (1999); Broekemier (2002); Whitehead et al. (2002); Holdswoth and Nind (2005); Shanka et al. (2005); and Keskinen et al. (2008).
Institution graduates are successful.	Dillon (1995); and Patton (2000).
Parents / family members graduated from institution	Smith and Matthews (1990); and Martin and Dixon (1991).
Recruited by institution	Galotti and Mark (1994).
Institution graduates get good jobs	Sanders (1986); Smith and Matthews (1990); Dillon (1995); Broekemier (2002); Soutar and Turner (2002); and Garma and Yoon (2003).
Not accepted anywhere else.	American freshman report (2009).

The next chapter will present an overview of the research methodology used in this study.

Chapter 3

Methodology

3.1 Introduction

The following chapter summarizes the way we obtained the information about students' reasons to choose UWC, the sample of students and the statistical analysis that was used to organize and interpret the data. It also presents the research questions and variables, the research purpose and objectives, the research design and instrumentation.

3.2 Research questions and variables

In this section the research questions are given, and the variables to be used in the analysis will be discussed as well.

3.2.1 Research questions

The following questions and hypotheses will be examined:

1. What are the most important reasons influencing first-year students to attend UWC?

2. What are the factors behind the first-year students' decisions to attend UWC?

3.2.2 Research variables

The data consists of 17 variables that were chosen from the questionnaire designed by the Student Support and Development Center of the University of the Western Cape. The 17 variables encapsulate information about the demographic characteristics and grade 12 average (5 variables) and reasons influencing a student's choice of UWC as higher education institution (12 variables). A list of the demographic variables and grade 12 average is provided in Table 3.1. A list of variables on reasons to choose UWC is provided in Table 3.2.

Table 3.1: Demographic characteristics and grade 12 average

Variable	Category
Gender	1: Male 2: Female
Age group	1: 16 - 20 years 2: 21 years and above
Population group	1: Black African 2: Coloured
Parents / guardians monthly income	1: Less than R10 000 2: R10 000 and more
Grade 12 average	1: Less than 60% 2: 60% and above

Table 3.1 contains the demographic characteristics and grade 12 average variables and categories used.

Table 3.2: Reasons that might have influenced the decision to choose UWC

Q1	Family member's advice
Q2	Teacher's advice
Q3	Friend's advice
Q4	Good academic reputation
Q5	Offered financial assistance
Q6	Low tuition
Q7	Wanted to study near to home
Q8	UWC graduates are successful
Q9	Parents / family members graduated from UWC
Q10	Recruited by UWC
Q11	UWC graduates get good jobs
Q12	Not accepted anywhere

Table 3.2 contains reasons that might have influenced students to select UWC as tertiary institution. The students replied to each reason using a five-point scale (1= can't say, 2= not important, 3= important, 4= somewhat important and 5= very important). For the purpose of this study, we excluded the cases where the respondent answered "can't say". Also, we have excluded "I want to study far from home" from the list of the reasons and kept "I want to study near to home" only; this was done because they measure the same aspect and we wanted to avoid duplication of information.

3.3 Research purpose and objectives

The purpose of this study is to find the most important reasons behind the first-year students' decision to select UWC as higher education institution, and we wanted to know if the many reasons that influenced the choice of UWC could be organized into a few factors that could easily be interpreted. The following research objectives were developed to guide the study:

1. To profile first-year students' decisions to select UWC as higher education institution.

2. To determine if reasons for selecting UWC as higher institution differs among demographic characteristics and grade 12 average.

3. To identify the key factors behind first-year students' decision to select UWC as higher education institution.

3.4 Research design

The research sought to identify the factors that have supported students to make the decision to select UWC as a place to study. The research design utilized a cross-sectional study where the first-year students who enrolled in 2008 were surveyed during the orientation week, which was from 19 to 29 January 2008.

3.5 Study population, sample and data editing

The population for this study consisted of all first-time entering first-year students (full-time) at the University of the Western Cape. The variables studied here were chosen from the data collected during the orientation period of 2008. The total number of first-year students enrolled in 2008 was 2897 while only between 50% and 60% attended the orientation week. Of those who attended the orientation week 1572 returned the questionnaire after completing it. For the purpose of this study, only the black African and coloured students who handed back the questionnaire were considered. The other racial groups were not analyzed due to too small sample sizes. Students who indicated that they "could not say" why they selected UWC were removed from the sample. Questionnaires with missing information on the reasons for selecting UWC were not analyzed. We ended up with a sample of size 600.

3.6 Data collection method

The data collection process of this study was a survey research technique. The questionnaire was administered to first-time entering first-year (full-time) students at the University of Western Cape during the orientation week held in January 2008. All the

data were collected during the orientation week, the questionnaires were completed on a voluntary basis by first-year students.

3.7 Instrumentation

The survey instrument used in this study was developed by the Student Development and Support Center of the University of the Western Cape. A self-administered questionnaire was used to capture the information from the students. A five point-scale is used to indicate the importance of reasons to select UWC.

3.8 Statistical methods

Exploration and analysis of the data was carried out in five stages: (1) descriptive statistics; (2) bivariate analyses to test which reasons to select UWC were associated with demographic characteristics and the grade 12 average; (3) factor analyses were used to organize the reasons for selecting UWC into a few factors that could easily be interpreted; (4) The coefficient of congruence was used to test the similarity of factors between the demographic characteristics and grade 12 average; (5) non-parametric bootstrap was used to compare factors extracted using Spearman and Polychoric correlation matrices. The statistical software package SPSS and SAS were used to manage and analyze the data.

3.8.1 Descriptive statistics

The demographic characteristics and grade 12 average as well as reasons to choose UWC for higher education were described using frequencies and percentages.

3.8.2 Bivariate analysis

The chi-square test of association were used to test the hypothesis of no association between reasons to select UWC as higher education institution and demographic char-

acteristics or the grade 12 average.

3.8.3 Factor analysis

Factor analysis used in this study is often referred to as an exploratory factor analysis because it starts with no assumptions about the number of factors that exist or the nature of these factors (Manly, 2004). The principal component analysis method of extraction was used to obtain factor solutions using a Spearman and Polychoric correlation matrix. Kaiser's criterion was used to determine the number of factors that should be retained. The solution from the principal component method can be rotated in order to simplify the interpretation of the factor. The Varimax (orthogonal) rotation, as the rotation method, seeks to have a factor structure, in which each variable loads highly on one and only one factor (Sharma, 1996).

3.8.4 Coefficient of congruence

The coefficient of congruence is used to test the similarity between factor loadings, for each factor, from two different groups. Coefficient of congruence was presented by Tucker (1951) as a congruence index, phi (Zumbo et al., 2003). The value of the congruence coefficient can range from 1.00 (perfect agreement) to -1.00 (perfect inverse agreement), with 0.00 indicating no agreement. Hurley and Cattell (1962) indicated that if the value of the congruence coefficient is greater than 0.90 there is evidence that the factors are similar.

3.8.5 Bootstrap factor analysis

Bootstrap method attempts to estimate the sampling distributions for statistical estimators empirically, using information drawn from the sample of observations used to estimate the statistical model in the first place (Efron and Tibshirani, 1993). The standard errors of these parameter estimates can be used either for inferential or for descriptive purpose estimates. There are two approaches to bootstrapping, namely: a

parametric approach, in which random samples are drawn for a specified probability density function and, a non-parametric approach where hundreds or thousands of re-samples are drawn with replacement and each resample is the same size as the original sample (Thompson, 2004). For this study, a bootstrap factor analysis using the non-parametric approach is conducted using the two correlation matrices Spearman and Polychoric as follow:

1. Using SPSS syntax 25, 50 and 75 bootstrap samples were generated.
2. Factor analysis models using both correlation matrices to the bootstrap samples were obtained.
3. Standard errors of parameter estimates were obtained.
4. The bootstrap standard error was used to see the accuracy of each factor model constructed using both correlation matrices. For factor analysis a model with small standard errors is more stable.

In the next chapter the results will be discussed. The sample will be described and the association between demographic characteristics and grade 12 average with reasons of why UWC was selected will be investigated. The factor analyses using Spearman and Polychoric correlations were constructed.

Chapter 4

Results

4.1 Introduction

The purpose of this study is to find the most important reasons behind first-year students decision to select UWC, and also if these reasons could be organized into a few factors that could easily be interpreted. The results of this study are presented in this chapter. The chapter is divided into six sections: the first section is the introduction, second section reports the descriptive statistics, the third section shows the tests of association and the fourth section reports on the factor analyses. Section five shows tests of similarity among demographic characteristics and grade 12 average. The last section presents a comparison between factor analysis models using two different correlation matrices.

4.2 Descriptive statistics

In this section descriptive statistics on the demographic characteristics and reasons to choose UWC for higher education are presented. In addition to the demographic variables, the grade 12 average is presented. We studied only black African and coloured students because they constituted the majority (91%) of first-year students attending UWC in 2008.

Table 4.1: Demographic characteristics and grade 12 average

Variable	Category	Frequency	Percent (%)
Gender	1: Male	205	34.2
	2: Female	395	65.8
Age group	1: 16 - 20 years	522	87.0
	2: 21 years and above	78	13.0
Population group	1: Black African	158	26.3
	2: Coloured	442	73.7
Parents' / guardians' monthly income	1: Less than R10 000	323	53.8
	2: R10 000 and more	277	46.2
Grade 12 average	1: Less than 60%	240	40.0
	2: 60% and above	360	60.0

Table 4.1 shows the distribution of demographic characteristics and the grade 12 average. Thirty-four percent of the respondents were males and 66% were females. Eighty-seven percent were aged between 16 - 20 years and 13% were aged 21 years and above. Twenty-six percent were black African and 74% were coloured (South African citizen only). Fifty-four percent had parents / guardians with a monthly income of less than R10 000 and 46% had parents / guardians with a monthly income R10 000 and more. For the grade 12 average, 40% obtained less than 60% and 60% obtained 60% and more.

Table 4.2: Reasons for selecting UWC (indicated as %)

Variable	Very important	Somewhat important	Important	Not important
Family member's advice	**52.7**	28.0	8.0	11.3
Teacher's advice	30.0	34.7	9.7	25.6
Friend's advice	20.0	38.2	12.5	29.3
Good academic reputation	**60.8**	23.7	10.8	4.7
Offered financial assistance	33.5	27.2	12.7	26.6
Low tuition	29.8	30.0	14.0	26.2
Wanted to study near to home	26.5	20.3	10.2	**43.0**
UWC graduates are successful	**52.4**	21.0	15.8	10.8
Parents / family members graduated from UWC	19.2	21.0	5.2	**54.6**
Recruited by UWC	14.5	22.0	12.3	**51.2**
UWC graduates get good jobs	**41.5**	23.7	14.0	20.8
Not accepted anywhere	11.3	17.8	6.7	**64.2**

Table 4.2 shows the reasons why students chose UWC as higher education institution. The most important reasons indicated were "good academic reputation" (60.8%) followed by "family members advice" (52.7%), "UWC graduates are successful" (52.4%) and "UWC graduates get good jobs" (41.5%). The least important reasons were found to be "not accepted anywhere" (64.2%) followed by "parents / family members graduated from UWC" (54.6%), "recruited by UWC" (51.2%) and "wanted to study near to home" (43.0%).

4.3 Bivariate comparisons

The chi-square test measures the hypothesis that there is no significant associations between the reasons for selecting UWC for certain demographic characteristics and grade 12 average. A low significance value (below 0.05) indicates that there may be some association between the two variables. Output in Appendix B shows the chi-square tests between demographic characteristics and the grade 12 average variables and variables that might influence a student's decision.

4.3.1 Gender comparisons with variables indicating why UWC was selected

The chi-square test measures the hypothesis of no association between gender and variables indicating why UWC was selected (see Appendix B, Tables B_1 to B_12).

Table 4.3: Gender comparisons with variables indicating why UWC was selected

Variable	Chi-square	P-value
Family member's advice	2.815	0.421
Teacher's advice	1.756	0.625
Friend's advice	0.844	0.839
Good academic reputation	6.340	0.096
Offered financial assistance	6.839	0.077
Low tuition	1.426	0.699
Wanted to study near to home	1.852	0.604
UWC graduates are successful	3.554	0.314
Parents / family members graduated from UWC	5.974	0.113
Recruited by UWC	4.821	0.185
UWC graduates get good jobs	1.473	0.689
Not accepted anywhere	2.277	0.517

Table 4.3 contains chi-square test results for association between gender and the reason for applying at UWC variables. There was no association (no significance difference) between gender and any of the variables.

4.3.2 Age group comparisons with variables indicating why UWC was selected

The chi-square test measured the hypothesis of no association between age group (16 - 20 years, 21 and above years) and variables indicating why UWC was selected (see Appendix B, Tables B_13 to B_24).

Table 4.4: Age group comparisons with variables indicating why UWC was selected

Variable	Chi-square	P-value
Family member's advice	1.943	0.584
Teacher's advice	4.696	0.195
Friend's advice	3.991	0.262
Good academic reputation	2.947	0.400
Offered financial assistance	5.706	0.127
Low tuition	3.596	0.309
Wanted to study near to home	5.321	0.150
UWC graduates are successful	4.158	0.245
Parents / family members graduated from UWC	2.814	0.421
Recruited by UWC	3.852	0.278
UWC graduates get good jobs	0.460	0.928
Not accepted anywhere	2.995	0.392

Table 4.4 contains chi-square test results for association between age group and the reason for applying at UWC variables. The results showed that there was no association between age group and any of the variables.

4.3.3 Population group comparisons with variables indicating why UWC was selected

The chi-square test measured the hypothesis that there was no association between population group (black African, coloured students) and variables indicating why UWC was selected (see Appendix B, Tables B_25 to B_36).

Table 4.5: Population group comparisons with variables indicating why UWC was selected

Variable	Chi-square	P-value
Family member's advice	5.912	0.116
Teacher's advice	12.529	0.006**
Friend's advice	4.385	0.223
Good academic reputation	2.729	0.435
Offered financial assistance	5.373	0.146
Low tuition	1.929	0.587
Wanted to study near to home	22.695	0.000**
UWC graduates are successful	3.990	0.263
Parents / family members graduated from UWC	6.332	0.097
Recruited by UWC	7.900	0.048*
UWC graduates get good jobs	6.306	0.098
Not accepted anywhere	0.400	0.940

** P-value < 0.05*

*** P-value < 0.01*

Table 4.5 contains chi-square test results for association between the population group and reason for applying at UWC. There were significant associations (differences) between population group and "teachers advice", "wanted to study near to home" and "recruited by UWC". The largest differences between black African and coloured students with regard to "teacher's advice" were that more coloured students felt this reason to be "somewhat important". More black African students indicated that "wanted to study near to home" was "not important" and the reason "recruited by UWC" was "very important". More coloured students indicated that "wanted to study near to home" was "very important" and "recruited by UWC" was "important".

4.3.4 Parents' / guardians' monthly income comparisons with variables indicating why UWC was selected

The chi-square tests measured the hypothesis that there were no association between Parents' / guardians' monthly income (less than R10 000, R10 000 and more) and variables indicating why UWC was selected (see Appendix B, Tables B_37 to B_48).

Table 4.6: Parents' monthly income comparisons with variables indicating why UWC was selected

Variable	Chi-square	P-value
Family member's advice	0.282	0.963
Teacher's advice	18.839	0.000**
Friend's advice	8.591	0.035*
Good academic reputation	5.634	0.131
Offered financial assistance	41.982	0.000**
Low tuition	9.427	0.024*
Wanted to study near to home	3.661	0.300
UWC graduates are successful	4.286	0.232
Parents / family members graduated from UWC	10.044	0.018*
Recruited by UWC	7.288	0.063
UWC graduates get good jobs	9.022	0.029*
Not accepted anywhere	0.479	0.924

* *P-value* < 0.05

** *P-value* < 0.01

Table 4.6 shows chi-square test results for association between the Parents' / guardians' monthly income and reasons for applying at UWC. There were significant associations between Parents' / guardians' monthly income and "teacher's advice", "friend's advice", "offered financial assistance", "low tuition", "parents / family members graduated from UWC", and "UWC graduates get good jobs". The largest difference percentage in parents' monthly income groups was observed. Students indicating their parents' monthly income was less than R10 000 were more likely to say the "teacher's advice" was "very important" while students who indicated parents' monthly income R10 000 and above felt that "teacher's advice" or "friend's advice" was "not important". More students with parents' monthly income less than R10 000 felt that "financial assistance offered", "low tuition" and "UWC graduates get good jobs" were "very important". Students with parents' monthly income above and equal to R10 000 felt that "financial assistance offered" and "low tuition" were "not important". Students with parents' monthly income less than R10 000 said "parents / family members graduated from UWC" was "not important" and more students in the

monthly income group R10 000 and above said it was "very important".

4.3.5 Grade 12 average comparisons with variables indicating why UWC was selected

The chi-square test measured the hypothesis of no association between grade 12 average (less than 60% and 60% and above) and variables indicating why UWC was selected (see Appendix B, Tables B_49 to B_60).

Table 4.7: Grade 12 average comparisons with variables indicating why UWC was selected

Variable	Chi-square	P-value
Family member's advice	9.157	0.027*
Teacher's advice	3.541	0.316
Friend's advice	1.087	0.780
Good academic reputation	2.151	0.542
Offered financial assistance	5.052	0.168
Low tuition	0.294	0.961
Wanted to study near to home	0.451	0.930
UWC graduates are successful	3.849	0.278
Parents / family members graduated from UWC	1.920	0.589
Recruited by UWC	6.603	0.086
UWC graduates get good jobs	6.217	0.102
Not accepted anywhere	4.710	0.194

** P-value < 0.05*

*** P-value < 0.01*

Table 4.7 contains chi-square test results for association between the grade 12 averages and reason for applying at UWC. The only significant association was between grade 12 average and "family member's advice". The largest row percentage difference was observed. Students with grade 12 averages less than 60% were more likely to say the "family member's advice" was "very important", whereas more students with grade 12 averages 60% and above said "family member's advice" was "not important". The next section presents the factor analysis results using the principal component method

with Spearman and Polychoric correlations when ordinal variables that lack a metric scale are used.

4.4 Factor analysis

The basic idea of factor analysis is that it may be possible to describe a large number of intercorrelated measures to a few representative constructs or factors (Manly, 2004). This section depicts the results of factor analyses when utilizing the principal component method with Spearman or Polychoric correlation matrices. Numerous studies have used factor analysis with a matrix of Pearson correlations. Dollan (1994) suggested that five response categories are the minimum for the use of a Pearson correlation matrix in factor analysis. In this study it was decided to rather use Spearman or Polychoric correlation matrices due to the ordinal nature of the data. The solution from the principal component method could be rotated using a Varimax rotation in order to simplify the interpretation of factors with eigenvalue greater than one criterion, if the factor solution was not unique. Appendix C contains the pairwise Spearman and Polychoric correlation matrices among the twelve reasons to select UWC.

4.4.1 Factor analysis using the Spearman correlation matrix

The Spearman correlation matrix shows that all correlations were found to be fairly correlated and significant. The determinant listed at the bottom of the matrix, 0.027, is greater than the minimum necessary value of 0.00001 (see Appendix C, Table C_1). So multicollinearity was not a problem for the data analyzed.

Table 4.8: KMO and Bartlett's Test - Spearman correlation

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.840
Bartlett's Test of Sphericity	Approx. Chi-Square	2142.620
	Df	66.000
	Sig.	.000

Table 4.8 shows two tests that indicate the suitability of the data for structure

detection. The Kaiser-Meyer-Olkin (KMO) measure is the measure of sampling adequacy. The KMO statistics vary between 0 and 1. Kaiser (1960) recommends accepting values greater than 0.5. The values between 0.5 and 0.7 are mediocre, values between 0.7 and 0.8 are good, values between 0.8 and 0.9 are great and values above 0.9 are superb (Hutcheson and Sofroniou, 1999). For these data the value is 0.840, which falls in the range of being great, so we should be confident that the factor analysis may be suitable for the data.

Bartlett's test of sphericity tests the null hypothesis that the correlation matrix is an identity matrix, which would indicate that the variables are unrelated and therefore unsuitable for structure detection (Robert, 2006). Bartlett's test is highly significant ($p < 0.05$) that means we reject the null hypothesis and therefore the original correlation matrix is not an identity matrix. Thus there are some relationships between variables, so factor analysis is appropriate.

Table 4.9: Total Variance Explained - Spearman correlation

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.415	36.793	36.793	2.567	21.388	21.388
2	1.274	10.614	47.406	2.186	18.215	39.603
3	1.159	9.660	57.066	2.096	17.463	57.066
4	.877	7.306	64.372			
5	.756	6.303	70.674			
6	.705	5.874	76.548			
7	.602	5.021	81.569			
8	.588	4.902	86.471			
9	.535	4.457	90.928			
10	.425	3.545	94.473			
11	.351	2.926	97.399			
12	.312	2.601	100.000			

Extraction Method: Principal Component Analysis.

Table 4.9 shows the number of common factors extracted, the eigenvalues associated with each factor, the percentage and the cumulative percentage of total variance accounted for by factors. Using the criterion of retaining only factors with eigenvalues of one or greater, three factors were extracted. These three factors explain nearly 57%

of the variability in the original twelve variables. The last section of the table shows the eigenvalues after rotation. Since the factor solution was not unique, a Varimax rotation was used to find a simple structure. The rotation maintains the cumulative percentage of variation explained by the extracted factors. Rotation has the effect of optimizing the factor structure, before rotation, the first factor accounted for 36.79% of the variance while the other two factors accounted for 10.61% and 9.66% respectively. After rotation the first factor accounted 21.39% of the variance and the other factors for 18.22% and 17.46% respectively. The changes in the individual totals suggest that the rotated factor matrix will be easier to interpret than the unrotated matrix.

Table 4.10: Rotated Component Matrix - Spearman correlation

Reasons	Factor		
	1	2	3
Offered financial assistance	**.760**		
Low tuition	.712		
UWC graduates are successful	.635		
UWC graduates get good jobs	.615		
Good academic reputation	.582		
Teacher's advice		**.801**	
Family member's advice		.716	
Friend's advice		.675	
Not accepted anywhere else			**.720**
Parents / family members graduated from UWC			.717
Recruited by UWC			.624
Wanted to study near home			.563

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 8 iterations.

Table 4.10 shows the rotation component matrix. The rotation component matrix presents the high loading of a variable on the three factors after the Varimax rotation. The gaps in the table represent loadings that were less than 0.5. From the rotation matrix, we can see that the first factor had high loadings on "offered financial assistance", "low tuition", "UWC graduates are successful", "UWC graduates get good jobs" and "good academic reputation". An inspection of these influence reasons shows that the majority of these influence reasons reflect *UWC characteristics*. The second

factor had high loadings on "teacher's advice", "family member's advice" and "friend's advice" which reflect *advice from others*. "Not accepted anywhere else", "parents / family members graduated from UWC", "recruited by UWC" and "wanted to study near to home" were substantially loaded on the third factor which reflects the *other considerations*. The first factor (UWC characteristics) was most highly correlated with "offered financial assistance". The second factor (advice from others) was most highly correlated with "teacher's advice". The last factor (other considerations) was most highly correlated with "not accepted anywhere else". This suggests that UWC can focus on "offered financial assistance" and "teacher's advice" to attract students.

4.4.2 Factor analysis using the Polychoric correlation matrix

The Polychoric correlation matrix shows the correlations between twelve reasons to select UWC. The correlations were found to be fairly correlated and significant, which we need in the factor analysis. The determinant listed at the bottom of the matrix 0.003 is greater than the minimum necessary value of 0.00001 (see Appendix C, Table C_2). So multicollinearity was not a problem for the data analyzed.

Table 4.11: KMO and Bartlett's Test - Polychoric correlation

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.821
Bartlett's Test of Sphericity	Approx. Chi-Square	3415.840
	Df	66.000
	Sig.	.000

Table 4.11 shows two tests that indicate the suitability of the data for structure detection. The KMO statistics was 0.821, which fell into the range of being great, so the factor analysis may be suitable for the data. Bartlett's test was highly significant ($p < 0.05$) which means that the correlation matrix was not an identity matrix. Thus factor analysis was appropriate.

Table 4.12: Total Variance Explained - Polychoric correlation

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.326	44.382	44.382	2.912	24.269	24.269
2	1.311	10.922	55.304	2.531	21.091	45.360
3	1.147	9.558	64.862	2.340	19.502	64.862
4	.849	7.075	71.937			
5	.688	5.733	77.670			
6	.596	4.963	82.633			
7	.500	4.169	86.802			
8	.471	3.922	90.724			
9	.413	3.443	94.168			
10	.302	2.513	96.681			
11	.225	1.875	98.556			
12	.173	1.444	100.000			

Extraction Method: Principal Component Analysis.

Table 4.12 shows the number of common factors extracted, the eigenvalues associated with each factor, the percentage and the cumulative percentage of total variance accounted for by factors. Eigenvalues equal one or greater were requested, three factors were extracted. These three factors explained nearly 65% of the variability in the original twelve variables. The first factor accounted for 44.38% of variance while the other two factors accounted for 10.92% and 9.56% respectively. The last section of the table shows the eigenvalues after rotation, which has the effect of optimizing the factor structure. Since the factor solution was not unique, a Varimax rotation was used to find a simple structure. After rotation, the first factor accounted for 24.27% of variance and the other factors for 21.09% and 19.50% respectively.

Table 4.13: Rotated Component Matrix - Polychoric correlation

Reasons	Factor		
	1	2	3
Offered financial assistance	**.802**		
Low tuition	.736		
UWC graduates are successful	.650		
UWC graduates get good jobs	.637		
Good academic reputation	.638		
Teacher's advice		**.837**	
Family members advice		.761	
Friend's advice		.720	
Parents / family members graduated from UWC			**.763**
Not accepted anywhere else			.752
Recruited by UWC			.625
Wanted to study near home			.594

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 8 iterations.

Table 4.13 shows the results of the rotation matrix using a Varimax rotation method. The gaps in the table represent loadings that were less than 0.5. From the rotation matrix we can see that the first factor (UWC characteristics factor) had high loadings on "offered financial assistance", "low tuition", "UWC graduates are successful", "UWC graduates get good jobs" and "good academic reputation". The second factor (advice from others) had high loadings on "teacher's advice", "family member's advice" and "friend's advice". "Parents / family members graduated from UWC", "not accepted anywhere else", "recruited by UWC" and "wanted to study near to home" were substantially loaded on the third factor (other considerations). The *UWC characteristics* factor was most highly correlated with "offered financial assistance". The *advice from others* factor was most highly correlated with "teacher's advice". The last factor was most highly correlated with "parents / family members graduated from UWC". The two correlation matrices showed "offered financial assistance" and "teacher's advice" were the most important reasons for attracting students.

In the next section a test of factor similarity based on demographic characteristics and grade 12 average using Spearman and Polychoric correlation matrices is presented.

4.5 Factor analysis by demographic characteristics and grade 12 average

To test the hypothesis that the demographic characteristics and grade 12 average categories have similar factors, the coefficient of congruence is used to measure the similarity of the factor loadings across groups by rotating the two factor solutions. According to Hurley and Cattell (1962) pairs of factors from two different groups are similar if the value of congruence coefficient is greater than 0.90. Factor analysis was conducted for demographic characteristics and grade 12 average groups using Spearman and Polychoric correlation matrices, principal component method and the varimax rotation with eigenvalue greater than one criterion. The rotated factor matrices are presented in Appendix D, Tables D_1 to D_10 and Appendix F, Tables F_1 to F_10.

4.5.1 Factor similarity among gender

Three factors were extracted for male and female using principal component methods and a varimax rotation with the eigenvalue greater than one criterion. Coefficients of congruence were calculated using rotated factor loadings. F1, refers to the first factor, F2, the second factor and F3, the third factor.

Table 4.14: Similarity between influence factors by gender

	Spearman correlation matrix			Polychoric correlation matrix		
Females factors	Males factors			Males factors		
	F1	F2	F3	F1	F2	F3
F1	0.972	0.459	0.496	0.968	0.498	0.566
F2	0.545	0.974	0.395	0.586	0.980	0.448
F3	0.504	0.436	0.980	0.577	0.512	0.976

Table 4.14 shows the similarity between influence factors based on gender. The results of both correlation matrices were rearranged to place the highest congruence coefficient on the diagonal. Congruence coefficients between matching factors indicated that a high degree of similarity between the structure of influence factors for

male and female (greater than 0.90 according to Hurley and Cattell, 1962). The *UWC characteristics* factor (male F1 - female F1) had the highest loading on "offered financial assistance" using a Polychoric correlation matrix. Using the Spearman correlation matrix the male factor had highest loading on "offered financial assistance" and the female factor had the highest loading on "low tuition". The *advice from others* factor (male F2 - female F2) had the highest loading on "family member's advice" and "teacher's advice" for male and female respectively using both correlation matrices. The *other considerations* factor (male F3 - female F3) had the highest loadings on "not accepted anywhere else" and "parents / family members graduated from UWC" for male and female respectively using both correlation matrices. These results are consistent with the bivariate results which indicated no significance difference between male and female according to the reasons for selecting UWC (see Section 4.3.1).

4.5.2 Factor similarity among age groups

Spearman and Polychoric correlation matrices were used to conduct factor analyses for ages 16 - 20 years and 21 years and above, using the principal component methods and a varimax rotation with the eigenvalue greater than one criterion. Three factors were extracted for both age groups. The coefficients of congruence were calculated using the rotated factor loadings.

Table 4.15: Similarity between influence factors by age group

	Spearman correlation matrix			Polychoric correlation matrix		
Age group 21 years and above factors	Age group 16 - 20 years factors			Age group 16 - 20 years factors		
	F1	F2	F3	F1	F2	F3
F1	0.972	0.459	0.496	0.968	0.498	0.566
F2	0.545	0.974	0.395	0.586	0.980	0.448
F3	0.504	0.436	0.980	0.577	0.512	0.976

Table 4.15 shows the similarity between influence factors based on age groups. The results of both correlation matrices were rearranged to place the highest congruence coefficient on the diagonal. The coefficients of congruence between matching factors indicated that a high degree of similarity existed between the age group 16 - 20 years

factors and the 21 years and above factors (greater than 0.90 according to Hurley and Cattell, 1962). The *advice from others* factor (age 16 - 20 years F2 - 21 years and above F1) had the highest loading on "teacher's advice". The *other considerations* factor (age 16 - 20 years F3 - 21 years and above F2) had the highest loadings on "not accepted anywhere else" and "parents / family members graduated from UWC" using the Spearman and Polychoric correlation matrices respectively. The *UWC characteristics* factor (age 16 - 20 years F1 - 21 years and above F3) had the highest loading on "offered financial assistance". This result is not consistent with the bivariate results in Section 4.3.2. The three factors that were extracted had different variances explained according to the age groups. These results might be due to our sample, since 87% were age 16 - 20 years and 13% were aged 21 years and above.

4.5.3 Factor similarity among population groups

Factor analysis models were conducted using Spearman and Polychoric correlation matrices for black African and coloured students with the principal component method, a varimax rotation and the eigenvalue greater than one criterion. Three factors were extracted for both population groups. Congruence coefficients were calculated using rotated factor loadings.

Table 4.16: Similarity between influence factors by population group

	Spearman correlation matrix			Polychoric correlation matrix		
Coloured factors	Black African factors			Black African factors		
	F1	F2	F3	F1	F2	F3
F1	0.953	0.386	0.626	0.950	0.434	0.668
F2	0.570	0.958	0.391	0.662	0.949	0.477
F3	0.363	0.412	0.964	0.405	0.467	0.956

Table 4.16 shows the similarity between influence factors based on population groups. The highest congruence coefficient was placed on the diagonal. Congruence coefficients between matching factors indicated that a high degree of similarity between black African factors and coloured factors (greater than 0.90 according to Hurley and Cattell, 1962). The *UWC characteristics* factor (black African F2 - coloured F1)

had the highest loading on "offered financial assistance". The *other considerations* factor (black African F3 - coloured F2) had the highest loadings on "not accepted anywhere else" and "parents / family members graduated from UWC" for black African and coloured students respectively. The *advice from others* factor (black African F1 - coloured F3) had the highest loading on "teacher's advice". These results consist with the bivariate results in Section 4.3.3. The three factors that were extracted had different variances explained according to the population groups.

4.5.4 Factor similarity among parents' monthly income groups

Spearman and Polychoric correlation matrices were used to conduct factor analyses for student with parents' monthly income less than R10 000 and R10 000 and more, using the principal component method and a varimax rotation with the eigenvalue greater than one criterion. Three factors were extracted for both income groups. The coefficient of congruence was calculated using rotated factor loadings.

Table 4.17: Similarity between influence factors by parents' monthly income groups

	Spearman correlation matrix			Polychoric correlation matrix		
Monthly income R10 000 and more factors	Monthly income less than R10 000 factors			Monthly income less than R10 000 factors		
	F2	F1	F3	F3	F1	F2
F1	0.915	0.687	0.343	0.927	0.740	0.409
F2	0.344	0.939	0.602	0.438	0.940	0.642
F3	0.552	0.370	0.961	0.589	0.421	0.967

Table 4.17 shows the similarity between influence factors based on parents' monthly income groups. The highest coefficients of congruence were placed on the diagonal. Congruence coefficients between matching factors indicated that a high degree of similarity between students with parents' monthly income less than R10 000 factors and students with parents' monthly income R10 000 and more (greater than 0.90 according to Hurley and Cattell, 1962). The *other considerations* factor (income less than R10-000 F2 - income R10 000 and more F1) had the highest loadings on "parents / family members graduated from UWC" and "recruited by UWC" for students with

parents' monthly income less than R10 000 factors and students with parents' monthly income R10 000 and more, respectively using the Spearman correlation matrix. When using the Polychoric correlation matrix the *other considerations* factor (income less than R10 000 F3) had the highest loadings on "parents / family members graduated from UWC". The *UWC characteristics* factor (income less than R10 000 F1 - income R10 000 and more F2) had the highest loading on "offered financial assistance" for students with parents' monthly income less than R10 000 and on "UWC graduates are successful" for students with parents' monthly income R10 000 and more, using both correlation matrices. The *advice from others* factor (income less than R10 000 F3 - income R10 000 and more F3) had the highest loading on "teacher's advice". These results consist with the bivariate results in Section 4.3.4. The three factors were extracted had different variances explained according to the parents' monthly income groups.

4.5.5 Factor similarity among grade 12 average groups

Factor analysis models are conducted using Spearman and Polychoric correlation matrices for grade 12 average groups with the principal component method, varimax rotation and the eigenvalue greater than one criterion. Three factors were extracted for both grade 12 average less than 60% and grade 12 average 60% and above. Congruence coefficients are calculated using rotated factor loadings.

Table 4.18: Similarity between influence factors for grade 12 average groups

	Spearman correlation matrix			Polychoric correlation matrix		
Grade 12 average 60% and above factors	Grade 12 average less than 60%			Grade 12 average less than 60%		
	F3	F1	F2	F3	F1	F2
F1	0.952	0.622	0.346	0.966	0.619	0.404
F2	0.346	0.961	0.555	0.428	0.975	0.583
F3	0.487	0.455	0.949	0.533	0.554	0.959

Table 4.18 shows the similarity between influence factors based on grade 12 average groups. Congruence coefficients between matching factors were placed on the diagonal, which indicated that a high degree of similarity between grade 12 average less than 60%

and grade 12 average 60% and above factors (greater than 0.90 according to Hurley and Cattell, 1962). The *advice from others* factor (grade 12 average less than 60% F3 - grade 12 average 60% and above F1) had the highest loading on "teacher's advice". The *UWC characteristics* factor (grade 12 average less than 60% F1 - grade 12 average 60% and above F2) had the highest loadings on "UWC graduates are successful" and "offered financial assistance" for grade 12 average less than 60% and grade 12 average 60% and above respectively using the Spearman correlation matrix. When the Polychoric correlation matrix was used both grade 12 average factors had the highest loadings on "offered financial assistance". The *other considerations* factor (grade 12 average less than 60% F2 - grade 12 average 60% and above F3) had the highest loadings on "not accepted anywhere else" and "parents / family members graduated from UWC" for grade 12 average less than 60% and grade 12 average 60% and above respectively using both correlation matrices. These results were consistent with the bivariate results in Section 4.3.5. The three factors extracted had different variances explained according to the grade 12 average groups.

The following section presents comparisons between factor analysis models constructed using Spearman and Polychoric correlation matrices.

4.6 Bootstrap factor analysis

The non-parametric bootstrap was used to evaluate the stability of factor models constructed using Spearman and Polychoric correlation matrices. The total variance explained by the extracted factors and the highest loadings in each factor were used to evaluate the stability. Bootstrap factor analysis was conducted using the principal component method and a varimax rotation with the eigenvalue greater than one criterion.

Table 4.19: Mean and standard error of the total variance explained using bootstrap factor analyses

Bootstrap samples	25	50	75
Mean and standard errors of the total variance explained using a Spearman correlation matrix	57.71 (.23111)	57.40 (.15838)	57.44 (.17462)
Mean and standard errors of the total variance explained using a Polychoric correlation matrix	65.80 (.25517)	65.45 (.18192)	65.43 (.18541)

Table 4.19 shows the mean and the standard error of the total variance explained by the factors extracted based on 25, 50 and 75 bootstrap samples (see Appendix F, Tables F_1 to F_3). The small standard errors indicate that the total variance explained by factors extracted is stable across resampling (Efron and Tibshirani, 1993). The results suggested that the variance explained by the factors extracted had smaller standard errors when the Spearman correlation matrix was used across bootstrap samples, but the standard errors of the total variance explained using the Polychoric correlation matrix tended to be smaller when bootstrap samples tended to be larger. According to Efron and Tibshirani (1993) more than 200 bootstrap samples are needed for estimating a standard error. Therefore according to our bootstrap samples we conclude that both correlation matrices gave us stable total variances with a higher variance explained when the Polychoric correlation matrix was used.

Table 4.20: Mean and standard error of the highest loadings using bootstrap factor analyses

Bootstrap samples	75		
	Factor1	Factor2	Factor3
Mean and standard errors of the highest loading using Spearman	.6488 (.02595)	.4589 (.04112)	.5021 (.03121)
The highest loading in the original sample using Spearman	.760	.801	.720
Mean and standard errors of highest loading using Polychoric	.6467 (.03018)	.5073 (.04190)	.5987 (.02966)
The highest loading in the original sample using Polychoric	.802	.837	.763

Table 4.20 shows the mean and the standard error for the highest loading in each factor based on 75 bootstrap samples (see Appendix F, Tables F_4). Small standard

errors indicate that the loadings were stable across resampling (Efron and Tibshirani, 1993). The results suggested that the highest loadings in the first two factors had smaller standard errors when the Spearman correlation matrix was used across bootstrap samples and smaller in the third factor when the Polychoric correlation matrix was used. In addition the means of the 75 replications for the highest loadings in each factor were slightly smaller than the highest loadings in the original sample, when the Spearman correlation matrix was used except in the third factor the Polychoric matrix showed a smaller difference. This indicates that both the correlation matrices are unbiased. As mentioned above the standard errors when using the Polychoric correlation matrix tended to be smaller when bootstrap samples tended to be larger.

According to the bootstrap results for the variance explained and when the highest loadings in the factors were extracted, we can conclude that both correlation matrices gave us stable parameter estimates with a higher variance explained and higher loadings when the Polychoric correlation matrix was used.

The next chapter presents the discussion of the results, conclusions and recommendations.

Chapter 5

Discussion, conclusion and recommendations

5.1 Introduction

The purpose of this study is to find the most important reasons behind the first-year students' decision to select UWC as higher education institution, and if these reasons that influence the selection of UWC could be organized into a few factors that could easily be interpreted.

This chapter is designed to examine the results of this study and their implications on further research and practice. In the second section we discuss the research questions posed in the study and how the results relate to prior research. The third section draws some general conclusions about the university selection process for the first-year students who attended UWC. Recommendations for future research are provided in the last section.

5.2 Discussion

The review of the literature suggests that family, teacher's and friend's advice, academic reputation, financial assistance, distance from home, tuition cost and institu-

tion graduates success and their employment opportunities were major reasons why students selected a specific institution.

The first research question in the study investigated the most and least important reasons behind the first-year student's decision to attend UWC as higher education institution. In order to explore this question, the researcher examined the percentage scores for the responses. The results indicated that "good academic reputation", "family member's advice", "UWC graduates are successful" and "UWC graduates get good jobs" were the most important reasons for the first-year students to attended UWC, and the least important reasons were found to be "not accepted anywhere else", "parents / family members graduated from UWC", "recruited by UWC" and "wanted to study near to home". These findings are interesting for some reason. First, they suggest that the good academic reputation of UWC and UWC graduates are successful and are getting good jobs seem to be very important reasons when first-year black African and coloured students are deciding to attend UWC. Second, these findings reflect that *advice from others* and *other considerations* factors are not as influential in deciding where to attend, except "advice from family members". These results support Dillon (1995), who indicated that "good academic reputation", "family member's advice", "university graduates are successful" and "university graduates get good jobs" were of the most important reasons. Soutar and Turner (2002) found that the "academic reputation" and "job prospects" were the most important determinants of university preference. In this study "family member's advice" and "UWC graduates are successful" were also very important reasons.

Results by demographic characteristics and grade 12 average indicated that there were no associations between selection reasons and gender or age group. However, there are some associations between selection reasons and the population group, parents' monthly income group and grade 12 average. The associations between selection reasons and population groups of students indicated that more black African students felt that "recruited by UWC" was very important and more coloured students indicated that "wanted to study near to home" was very important. According to parents'

monthly income group the results for students indicating their parents monthly income was less than R10 000 was more likely to say the "teacher's advice", "financial assistance offered", "low tuition" and "UWC graduates get good jobs" were very important, while more students with parental monthly income R10 000 and above said "parents / family members graduated from UWC" was very important. The findings firstly showed us that coloured students were influenced by the distance from home and black African students were influenced by university recruitment. Secondly, students with parents' monthly income less than R10 000 were more interested in "financial assistance offered", "low tuition", while students with parents monthly income R10 000 and above were influenced by "parents / family members graduated from the university". Previous studies support these findings. James et al. (1999) found that there was no association between gender and students' decisions. Howard (1987) found that there was no difference among age groups in reasons for choosing a particular college. Lewis and Morrison (1975) found differences between white students' and African-American students' decision-making processes. Hossler et al. (1989) found that students' academic abilities and socio-economic status played a significant role in college decision-making activities.

The second question posed in the study determined the factors behind the selection process of first-year students to attended UWC. In order to answer this question, factor analyses were used based on two different correlation matrices. The results from both correlation matrices indicated that three factors were extracted. The first factor was called *UWC characteristics*, which included selection reasons "offered financial assistance", "low tuition", "UWC graduates are successful", "UWC graduates get good jobs" and "good academic reputation". The second factor was called *advice from others*, which included "teacher's advice", "family member's advice" and "friend's advice". The last factor was called *other considerations*, which included other selection reasons "parents / family members graduated from UWC", "not accepted anywhere else", "recruited by UWC" and "wanted to study near to home".

Factor analysis results by demographic characteristics and grade 12 average in-

dicated similarities among matching factors, and showed consistency with chi-square results. The only inconsistency appeared to be in the age groups, and that might be due to the sample size of both age groups.

Finally additional analyses were conducted to test the reliability of factor analyses models constructed using Spearman and Polychoric correlation matrices. In order to investigate the reliability, bootstrap factor analyses were used. The results indicated that both correlation matrices were unbiased, with higher total variances and higher loadings when the Polychoric correlation matrix was used to construct a factor analysis model.

5.3 Conclusion

There were many reasons for first-year students to select UWC as a higher education institution. The following reasons were found to be very important: "good academic reputation", "family member's advice", "UWC graduates are successful" and "UWC graduates get good jobs". When looking at the choice factor categories, the factor analysis technique presented three factor groupings: *UWC characteristic*, *advice from others* and *other considerations*. These results suggest that first-year students, when selecting UWC, based their decisions on at least three factors, with high similarity among demographic characteristics and grade 12 average groups. Of these factors "offered financial assistance" and "teacher's advice" appear to have a great influence on the students' decision.

5.4 Recommendations

The results of this study revealed that there is still a need for further research on university choice factors. It is important for future studies to be based on larger samples of students from various ethnic groups to be drawn from a range of institutions. Other questions are: What are the differences and similarities among demographic

characteristics within an institution, and between institutions? What are the most and least important university choice factors that influence first-year students and graduates to attend the particular institution?

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Appendix A
A subset of questions from the first-year students' survey

PLEASE ANSWER BY INDICATING WITH AN X IN THE APPROPRIATE BOX.

1. **What is your gender (Sex)?**

1	Male	2	Female

2. **What is your age?**

1	16 - 20	2	21 - 30	3	31 - 40	4	40+

3. **Please indicate your population group (South African citizens only)**

1	Black African	2	Coloured	3	Indian	4	White

4. **What is your best estimate of your parents'/guardians' monthly income?**

1	Less than R 1000	2	R 1 000 – R 4 999	3	R 5 000 – R 9 999
4	R 10 000 – R 14 999	5	R 15 000 – R 19 999	6	R 20 000 and over

5. ***What overall % did you obtain for Matric / Grade 12?***

1	Less than 40%	2	40 – 49 %	3	50 – 59 %
4	60 – 69 %	5	70 – 74 %	6	75 % and above

6. **Below are some reasons that might have influenced your decision to attend UWC. How important was <u>EACH</u> reason in your decision to come here?**

Reasons	**Very Important**	**Somewhat Important**	**Important**	**Not Important**	**Can't say**
Family member's advice	5	4	3	2	1
Teacher's advice	5	4	3	2	1
Friend's advice	5	4	3	2	1
Good academic reputation	5	4	3	2	1
Offered financial assistance	5	4	3	2	1
Low tuition fees	5	4	3	2	1
Wanted to study near home	5	4	3	2	1
UWC graduates are successful	5	4	3	2	1
Parents/family members graduated from UWC	5	4	3	2	1
Recruited by UWC	5	4	3	2	1
UWC graduates get good jobs	5	4	3	2	1
Not accepted anywhere else	5	4	3	2	1
Wanted to study away from home	5	4	3	2	1

Appendix B

Chi-square Tests

Table B_1: Gender by family member's advice

Crosstab

			Family member's advice				
			Not important	Important	Somewhat important	Very important	Total
Gender	Male	Count	25	12	54	114	205
		% within Gender	12.2%	5.9%	26.3%	55.6%	100.0%
	Female	Count	43	36	114	202	395
		% within Gender	10.9%	9.1%	28.9%	51.1%	100.0%
	Total	Count	68	48	168	316	600
		% within Gender	11.3%	8.0%	28.0%	52.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.815[a]	3	.421
Likelihood Ratio	2.907	3	.406
Linear-by-Linear Association	.348	1	.555
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 16.40.

Table B_2: Gender by teacher's advice

Crosstab

			Teacher's advice				
			Not important	Important	Somewhat important	Very important	Total
Gender	Male	Count	59	18	70	58	205
		% within Gender	28.8%	8.8%	34.1%	28.3%	100.0%
	Female	Count	95	40	138	122	395
		% within Gender	24.1%	10.1%	34.9%	30.9%	100.0%
	Total	Count	154	58	208	180	600
		% within Gender	25.7%	9.7%	34.7%	30.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.756[a]	3	.625
Likelihood Ratio	1.742	3	.628
Linear-by-Linear Association	1.164	1	.281
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 19.82.

Table B_3: Gender by friend's advice

Crosstab

			Friend's advice				
			Not important	Important	Somewhat important	Very important	Total
Gender	Male	Count	57	26	83	39	205
		% within Gender	27.8%	12.7%	40.5%	19.0%	100.0%
	Female	Count	119	49	146	81	395
		% within Gender	30.1%	12.4%	37.0%	20.5%	100.0%
	Total	Count	176	75	229	120	600
		% within Gender	29.3%	12.5%	38.2%	20.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.844[a]	3	.839
Likelihood Ratio	.843	3	.839
Linear-by-Linear Association	.091	1	.763
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 25.63.

Table B_4: Gender by good academic reputation

Crosstab

			Good academic reputation				
			Not important	Important	Somewhat important	Very important	Total
Gender	Male	Count	15	21	53	116	205
		% within Gender	7.3%	10.2%	25.9%	56.6%	100.0%
	Female	Count	13	44	89	249	395
		% within Gender	3.3%	11.1%	22.5%	63.0%	100.0%
	Total	Count	28	65	142	365	600
		% within Gender	4.7%	10.8%	23.7%	60.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.340[a]	3	.096
Likelihood Ratio	6.069	3	.108
Linear-by-Linear Association	3.381	1	.066
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 9.57.

Table b_5: Gender by offered financial assistance

Crosstab

			Offered financial assistance				
			Not important	Important	Somewhat important	Very important	Total
Gender	Male	Count	67	20	52	66	205
		% within Gender	32.7%	9.8%	25.4%	32.2%	100.0%
	Female	Count	93	56	111	135	395
		% within Gender	23.5%	14.2%	28.1%	34.2%	100.0%
	Total	Count	160	76	163	201	600
		% within Gender	26.7%	12.7%	27.2%	33.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.839[a]	3	.077
Likelihood Ratio	6.808	3	.078
Linear-by-Linear Association	2.376	1	.123
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 25.97.

Table B_6: Gender by low tuition

Crosstab

			Low tuition				
			Not important	Important	Somewhat important	Very important	Total
Gender	Male	Count	53	33	62	57	205
		% within Gender	25.9%	16.1%	30.2%	27.8%	100.0%
	Female	Count	104	51	118	122	395
		% within Gender	26.3%	12.9%	29.9%	30.9%	100.0%
	Total	Count	157	84	180	179	600
		% within Gender	26.2%	14.0%	30.0%	29.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.426[a]	3	.699
Likelihood Ratio	1.410	3	.703
Linear-by-Linear Association	.282	1	.596
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 28.70.

Table B_7: Gender by wanted to study near home

Crosstab

			Wanted to study near home				
			Not important	Important	Somewhat important	Very important	Total
Gender	Male	Count	95	19	42	49	205
		% within Gender	46.3%	9.3%	20.5%	23.9%	100.0%
	Female	Count	163	42	80	110	395
		% within Gender	41.3%	10.6%	20.3%	27.8%	100.0%
	Total	Count	258	61	122	159	600
		% within Gender	43.0%	10.2%	20.3%	26.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.852[a]	3	.604
Likelihood Ratio	1.860	3	.602
Linear-by-Linear Association	1.364	1	.243
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 20.84.

Table B_8: Gender by UWC graduates are successful

Crosstab

			UWC graduates are successful				
			Not important	Important	Somewhat important	Very important	Total
Gender	Male	Count	27	29	48	101	205
		% within Gender	13.2%	14.1%	23.4%	49.3%	100.0%
	Female	Count	38	66	78	213	395
		% within Gender	9.6%	16.7%	19.7%	53.9%	100.0%
	Total	Count	65	95	126	314	600
		% within Gender	10.8%	15.8%	21.0%	52.3%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.554[a]	3	.314
Likelihood Ratio	3.509	3	.320
Linear-by-Linear Association	1.042	1	.307
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 22.21.

Table B_9: Gender by parents / family members graduated from UWC

Crosstab

			Parents / family members graduated from UWC				
			Not important	Important	Somewhat important	Very important	Total
Gender	Male	Count	101	9	46	49	205
		% within Gender	49.3%	4.4%	22.4%	23.9%	100.0%
	Female	Count	227	22	80	66	395
		% within Gender	57.5%	5.6%	20.3%	16.7%	100.0%
	Total	Count	328	31	126	115	600
		% within Gender	54.7%	5.2%	21.0%	19.2%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.974[a]	3	.113
Likelihood Ratio	5.890	3	.117
Linear-by-Linear Association	5.436	1	.020
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 10.59.

Table B_10: Gender by recruited by UWC

Crosstab

			Recruited by UWC				
			Not important	Important	Somewhat important	Very important	Total
Gender	Male	Count	101	21	45	38	205
		% within Gender	49.3%	10.2%	22.0%	18.5%	100.0%
	Female	Count	206	53	87	49	395
		% within Gender	52.2%	13.4%	22.0%	12.4%	100.0%
	Total	Count	307	74	132	87	600
		% within Gender	51.2%	12.3%	22.0%	14.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.821[a]	3	.185
Likelihood Ratio	4.731	3	.193
Linear-by-Linear Association	2.334	1	.127
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 25.28.

Table B_11: Gender by UWC graduates get good jobs

Crosstab

			UWC graduates get good jobs				
			Not important	Important	Somewhat important	Very important	Total
Gender	Male	Count	41	25	53	86	205
		% within Gender	20.0%	12.2%	25.9%	42.0%	100.0%
	Female	Count	84	59	89	163	395
		% within Gender	21.3%	14.9%	22.5%	41.3%	100.0%
	Total	Count	125	84	142	249	600
		% within Gender	20.8%	14.0%	23.7%	41.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.473[a]	3	.689
Likelihood Ratio	1.482	3	.687
Linear-by-Linear Association	.350	1	.554
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 28.70.

Table B_12: Gender by not accepted anywhere else

Crosstab

			Not accepted anywhere else				
			Not important	Important	Somewhat important	Very important	Total
Gender	Male	Count	125	13	39	28	205
		% within Gender	61.0%	6.3%	19.0%	13.7%	100.0%
	Female	Count	260	27	68	40	395
		% within Gender	65.8%	6.8%	17.2%	10.1%	100.0%
	Total	Count	385	40	107	68	600
		% within Gender	64.2%	6.7%	17.8%	11.3%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.277[a]	3	.517
Likelihood Ratio	2.237	3	.525
Linear-by-Linear Association	2.084	1	.149
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 13.67.

Table B_13: Age group by family member's advice

Crosstab

			Family member's advice				
			Not important	Important	Somewhat important	Very important	Total
Age group	16 - 20	Count	59	39	145	279	522
		% within Age group	11.3%	7.5%	27.8%	53.4%	100.0%
	21 and above	Count	9	9	23	37	78
		% within Age group	11.5%	11.5%	29.5%	47.4%	100.0%
	Total	Count	68	48	168	316	600
		% within Age group	11.3%	8.0%	28.0%	52.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.943[a]	3	.584
Likelihood Ratio	1.812	3	.612
Linear-by-Linear Association	.746	1	.388
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.24.

Table B_14: Age group by teacher's advice

Crosstab

			Teacher's advice				
			Not important	Important	Somewhat important	Very important	Total
Age group	16 - 20	Count	132	55	176	159	522
		% within Age group	25.3%	10.5%	33.7%	30.5%	100.0%
	21 and above	Count	22	3	32	21	78
		% within Age group	28.2%	3.8%	41.0%	26.9%	100.0%
	Total	Count	154	58	208	180	600
		% within Age group	25.7%	9.7%	34.7%	30.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.696[a]	3	.195
Likelihood Ratio	5.454	3	.141
Linear-by-Linear Association	.037	1	.848
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.54.

Table B_15: Age group by friend's advice

Crosstab

			Friend's advice				
			Not important	Important	Somewhat important	Very important	Total
Age group	16 - 20	Count	156	65	203	98	522
		% within Age group	29.9%	12.5%	38.9%	18.8%	100.0%
	21 and above	Count	20	10	26	22	78
		% within Age group	25.6%	12.8%	33.3%	28.2%	100.0%
	Total	Count	176	75	229	120	600
		% within Age group	29.3%	12.5%	38.2%	20.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.991[a]	3	.262
Likelihood Ratio	3.736	3	.291
Linear-by-Linear Association	1.688	1	.194
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 9.75.

Table B_16: Age group by good academic reputation

Crosstab

			Good academic reputation				
			Not important	Important	Somewhat important	Very important	Total
Age group	16 - 20	Count	27	58	121	316	522
		% within Age group	5.2%	11.1%	23.2%	60.5%	100.0%
	21 and above	Count	1	7	21	49	78
		% within Age group	1.3%	9.0%	26.9%	62.8%	100.0%
	Total	Count	28	65	142	365	600
		% within Age group	4.7%	10.8%	23.7%	60.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.947[a]	3	.400
Likelihood Ratio	3.718	3	.294
Linear-by-Linear Association	1.367	1	.242
N of Valid Cases	600		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 3.64.

Table B_17: Age group by offered financial assistance

Crosstab

			Offered financial assistance				
			Not important	Important	Somewhat important	Very important	Total
Age group	16 - 20	Count	147	67	140	168	522
		% within Age group	28.2%	12.8%	26.8%	32.2%	100.0%
	21 and above	Count	13	9	23	33	78
		% within Age group	16.7%	11.5%	29.5%	42.3%	100.0%
	Total	Count	160	76	163	201	600
		% within Age group	26.7%	12.7%	27.2%	33.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.706[a]	3	.127
Likelihood Ratio	6.015	3	.111
Linear-by-Linear Association	5.638	1	.018
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 9.88.

Table B_18: Age group by low tuition

Crosstab

			Low tuition				
			Not important	Important	Somewhat important	Very important	Total
Age group	16 - 20	Count	140	77	153	152	522
		% within Age group	26.8%	14.8%	29.3%	29.1%	100.0%
	21 and above	Count	17	7	27	27	78
		% within Age group	21.8%	9.0%	34.6%	34.6%	100.0%
	Total	Count	157	84	180	179	600
		% within Age group	26.2%	14.0%	30.0%	29.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.596[a]	3	.309
Likelihood Ratio	3.779	3	.286
Linear-by-Linear Association	2.279	1	.131
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 10.92.

Table B_19: Age group by wanted to study near home

Crosstab

			Wanted to study near home				
			Not important	Important	Somewhat important	Very important	Total
Age group	16 - 20	Count	220	54	102	146	522
		% within Age group	42.1%	10.3%	19.5%	28.0%	100.0%
	21 and above	Count	38	7	20	13	78
		% within Age group	48.7%	9.0%	25.6%	16.7%	100.0%
	Total	Count	258	61	122	159	600
		% within Age group	43.0%	10.2%	20.3%	26.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.321[a]	3	.150
Likelihood Ratio	5.649	3	.130
Linear-by-Linear Association	2.253	1	.133
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.93.

Table B_20: Age group by UWC graduates are successful

Crosstab

			UWC graduates are successful				
			Not important	Important	Somewhat important	Very important	Total
Age group	16 - 20	Count	53	87	112	270	522
		% within Age group	10.2%	16.7%	21.5%	51.7%	100.0%
	21 and above	Count	12	8	14	44	78
		% within Age group	15.4%	10.3%	17.9%	56.4%	100.0%
	Total	Count	65	95	126	314	600
		% within Age group	10.8%	15.8%	21.0%	52.3%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.158[a]	3	.245
Likelihood Ratio	4.217	3	.239
Linear-by-Linear Association	.002	1	.960
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 8.45.

Table B_21: Age group by parents / family members graduated from UWC

Crosstab

			Parents / family members graduated from UWC				
			Not important	Important	Somewhat important	Very important	Total
Age group	16 - 20	Count	284	29	106	103	522
		% within Age group	54.4%	5.6%	20.3%	19.7%	100.0%
	21 and above	Count	44	2	20	12	78
		% within Age group	56.4%	2.6%	25.6%	15.4%	100.0%
	Total	Count	328	31	126	115	600
		% within Age group	54.7%	5.2%	21.0%	19.2%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.814[a]	3	.421
Likelihood Ratio	3.035	3	.386
Linear-by-Linear Association	.128	1	.720
N of Valid Cases	600		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 4.03.

Table B_22: Age group by recruited by UWC

Crosstab

			Recruited by UWC				
			Not important	Important	Somewhat important	Very important	Total
Age group	16 - 20	Count	268	69	111	74	522
		% within Age group	51.3%	13.2%	21.3%	14.2%	100.0%
	21 and above	Count	39	5	21	13	78
		% within Age group	50.0%	6.4%	26.9%	16.7%	100.0%
	Total	Count	307	74	132	87	600
		% within Age group	51.2%	12.3%	22.0%	14.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.852[a]	3	.278
Likelihood Ratio	4.254	3	.235
Linear-by-Linear Association	.741	1	.389
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 9.62.

Table B_23: Age group by UWC graduates get good jobs

Crosstab

			UWC graduates get good jobs				
			Not important	Important	Somewhat important	Very important	Total
Age group	16 - 20	Count	108	75	123	216	522
		% within Age group	20.7%	14.4%	23.6%	41.4%	100.0%
	21 and above	Count	17	9	19	33	78
		% within Age group	21.8%	11.5%	24.4%	42.3%	100.0%
	Total	Count	125	84	142	249	600
		% within Age group	20.8%	14.0%	23.7%	41.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.460[a]	3	.928
Likelihood Ratio	.481	3	.923
Linear-by-Linear Association	.012	1	.913
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 10.92.

Table B_24: Age group by not accepted anywhere else

Crosstab

			Not accepted anywhere else				
			Not important	Important	Somewhat important	Very important	Total
Age group	16 - 20	Count	333	37	90	62	522
		% within Age group	63.8%	7.1%	17.2%	11.9%	100.0%
	21 and above	Count	52	3	17	6	78
		% within Age group	66.7%	3.8%	21.8%	7.7%	100.0%
	Total	Count	385	40	107	68	600
		% within Age group	64.2%	6.7%	17.8%	11.3%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.995[a]	3	.392
Likelihood Ratio	3.231	3	.357
Linear-by-Linear Association	.249	1	.618
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.20.

Table B_25: Population group by family member's advice

Crosstab

			Family member's advice				
			Not important	Important	Somewhat important	Very important	Total
Population group	Black African	Count	22	13	33	90	158
		% within Population group	13.9%	8.2%	20.9%	57.0%	100.0%
	Coloured	Count	46	35	135	226	442
		% within Population group	10.4%	7.9%	30.5%	51.1%	100.0%
	Total	Count	68	48	168	316	600
		% within Population group	11.3%	8.0%	28.0%	52.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.912[a]	3	.116
Likelihood Ratio	6.093	3	.107
Linear-by-Linear Association	.026	1	.871
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 12.64.

Table B_26: Population group by teacher's advice

Crosstab

			Teacher's advice				
			Not important	Important	Somewhat important	Very important	Total
Population group	Black African	Count	41	14	40	63	158
		% within Population group	25.9%	8.9%	25.3%	39.9%	100.0%
	Coloured	Count	113	44	168	117	442
		% within Population group	25.6%	10.0%	38.0%	26.5%	100.0%
	Total	Count	154	58	208	180	600
		% within Population group	25.7%	9.7%	34.7%	30.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.529[a]	3	.006
Likelihood Ratio	12.495	3	.006
Linear-by-Linear Association	1.650	1	.199
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 15.27.

Table B_27: Population group by friend's advice

Crosstab

			Friend's advice				
			Not important	Important	Somewhat important	Very important	Total
Population group	Black African	Count	48	20	51	39	158
		% within Population group	30.4%	12.7%	32.3%	24.7%	100.0%
	Coloured	Count	128	55	178	81	442
		% within Population group	29.0%	12.4%	40.3%	18.3%	100.0%
	Total	Count	176	75	229	120	600
		% within Population group	29.3%	12.5%	38.2%	20.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.385[a]	3	.223
Likelihood Ratio	4.352	3	.226
Linear-by-Linear Association	.102	1	.749
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 19.75.

Table B_28: Population group by good academic reputation

Crosstab

			Good academic reputation				
			Not important	Important	Somewhat important	Very important	Total
Population group	Black African	Count	11	16	35	96	158
		% within Population group	7.0%	10.1%	22.2%	60.8%	100.0%
	Coloured	Count	17	49	107	269	442
		% within Population group	3.8%	11.1%	24.2%	60.9%	100.0%
	Total	Count	28	65	142	365	600
		% within Population group	4.7%	10.8%	23.7%	60.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.729[a]	3	.435
Likelihood Ratio	2.537	3	.469
Linear-by-Linear Association	.455	1	.500
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.37.

Table B_29: Population group by offered financial assistance

Crosstab

			Offered financial assistance				
			Not important	Important	Somewhat important	Very important	Total
Population group	Black African	Count	32	25	45	56	158
		% within Population group	20.3%	15.8%	28.5%	35.4%	100.0%
	Coloured	Count	128	51	118	145	442
		% within Population group	29.0%	11.5%	26.7%	32.8%	100.0%
	Total	Count	160	76	163	201	600
		% within Population group	26.7%	12.7%	27.2%	33.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.373[a]	3	.146
Likelihood Ratio	5.490	3	.139
Linear-by-Linear Association	2.030	1	.154
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 20.01.

Table B_30: Population group by low tuition

Crosstab

			Low tuition				
			Not important	Important	Somewhat important	Very important	Total
Population group	Black African	Count	35	22	51	50	158
		% within Population group	22.2%	13.9%	32.3%	31.6%	100.0%
	Coloured	Count	122	62	129	129	442
		% within Population group	27.6%	14.0%	29.2%	29.2%	100.0%
	Total	Count	157	84	180	179	600
		% within Population group	26.2%	14.0%	30.0%	29.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.929[a]	3	.587
Likelihood Ratio	1.968	3	.579
Linear-by-Linear Association	1.558	1	.212
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 22.12.

Table B_31: Population group by wanted to study near home

Crosstab

			Wanted to study near home				
			Not important	Important	Somewhat important	Very important	Total
Population group	Black African	Count	90	12	33	23	158
		% within Population group	57.0%	7.6%	20.9%	14.6%	100.0%
	Coloured	Count	168	49	89	136	442
		% within Population group	38.0%	11.1%	20.1%	30.8%	100.0%
	Total	Count	258	61	122	159	600
		% within Population group	43.0%	10.2%	20.3%	26.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22.695[a]	3	.000
Likelihood Ratio	23.747	3	.000
Linear-by-Linear Association	18.599	1	.000
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 16.06.

Table B_32: Population group by UWC graduates are successful

Crosstab

			UWC graduates are successful				
			Not important	Important	Somewhat important	Very important	Total
Population group	Black African	Count	18	24	25	91	158
		% within Population group	11.4%	15.2%	15.8%	57.6%	100.0%
	Coloured	Count	47	71	101	223	442
		% within Population group	10.6%	16.1%	22.9%	50.5%	100.0%
	Total	Count	65	95	126	314	600
		% within Population group	10.8%	15.8%	21.0%	52.3%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.990[a]	3	.263
Likelihood Ratio	4.136	3	.247
Linear-by-Linear Association	.449	1	.503
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 17.12.

Table B_33: Population group by parents / family members graduated from UWC

Crosstab

			Parents / family members graduated from UWC				
			Not important	Important	Somewhat important	Very important	Total
Population group	Black African	Count	96	5	35	22	158
		% within Population group	60.8%	3.2%	22.2%	13.9%	100.0%
	Coloured	Count	232	26	91	93	442
		% within Population group	52.5%	5.9%	20.6%	21.0%	100.0%
	Total	Count	328	31	126	115	600
		% within Population group	54.7%	5.2%	21.0%	19.2%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.332[a]	3	.097
Likelihood Ratio	6.693	3	.082
Linear-by-Linear Association	3.350	1	.067
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 8.16.

Table B_34: Population group by recruited by UWC

Crosstab

			Recruited by UWC				
			Not important	Important	Somewhat important	Very important	Total
Population group	Black African	Count	79	12	36	31	158
		% within Population group	50.0%	7.6%	22.8%	19.6%	100.0%
	Coloured	Count	228	62	96	56	442
		% within Population group	51.6%	14.0%	21.7%	12.7%	100.0%
	Total	Count	307	74	132	87	600
		% within Population group	51.2%	12.3%	22.0%	14.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.900[a]	3	.048
Likelihood Ratio	8.075	3	.044
Linear-by-Linear Association	2.427	1	.119
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 19.49.

Table B_35: Population group by UWC graduates get good jobs

Crosstab

			UWC graduates get good jobs				
			Not important	Important	Somewhat important	Very important	Total
Population group	Black African	Count	30	23	28	77	158
		% within Population group	19.0%	14.6%	17.7%	48.7%	100.0%
	Coloured	Count	95	61	114	172	442
		% within Population group	21.5%	13.8%	25.8%	38.9%	100.0%
	Total	Count	125	84	142	249	600
		% within Population group	20.8%	14.0%	23.7%	41.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.306[a]	3	.098
Likelihood Ratio	6.424	3	.093
Linear-by-Linear Association	1.683	1	.195
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 22.12.

Table B_36: Population group by not accepted anywhere else

Crosstab

			Not accepted anywhere else				
			Not important	Important	Somewhat important	Very important	Total
Population group	Black African	Count	102	9	28	19	158
		% within Population group	64.6%	5.7%	17.7%	12.0%	100.0%
	Coloured	Count	283	b31	79	49	442
		% within Population group	64.0%	7.0%	17.9%	11.1%	100.0%
	Total	Count	385	40	107	68	600
		% within Population group	64.2%	6.7%	17.8%	11.3%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.400[a]	3	.940
Likelihood Ratio	.409	3	.938
Linear-by-Linear Association	.014	1	.907
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 10.53.

Table B_37: Parents' monthly income by family member's advice

Crosstab

			Family member's advice				
			Not important	Important	Somewhat important	Very important	Total
Parents' monthly income	Less than R 10 000	Count	37	25	93	168	323
		% within Parents' monthly income	11.5%	7.7%	28.8%	52.0%	100.0%
	R 10 000 and over	Count	31	23	75	148	277
		% within Parents' monthly income	11.2%	8.3%	27.1%	53.4%	100.0%
	Total	Count	68	48	168	316	600
		% within Parents' monthly income	11.3%	8.0%	28.0%	52.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.282[a]	3	.963
Likelihood Ratio	.282	3	.963
Linear-by-Linear Association	.028	1	.867
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 22.16.

Table B_38: Parents' monthly income by teacher's advice

Crosstab

			Teacher's advice				
			Not important	Important	Somewhat important	Very important	Total
Parents' monthly income	Less than R 10 000	Count	67	27	110	119	323
		% within Parents' monthly income	20.7%	8.4%	34.1%	36.8%	100.0%
	R 10 000 and over	Count	87	31	98	61	277
		% within Parents' monthly income	31.4%	11.2%	35.4%	22.0%	100.0%
	Total	Count	154	58	208	180	600
		% within Parents' monthly income	25.7%	9.7%	34.7%	30.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.839[a]	3	.000
Likelihood Ratio	19.070	3	.000
Linear-by-Linear Association	17.045	1	.000
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 26.78.

Table B_39: Parents' monthly income by friend's advice

Crosstab

			Friend's advice				
			Not important	Important	Somewhat important	Very important	Total
Parents' monthly income	Less than R 10 000	Count	79	46	129	69	323
		% within Parents' monthly income	24.5%	14.2%	39.9%	21.4%	100.0%
	R 10 000 and over	Count	97	29	100	51	277
		% within Parents' monthly income	35.0%	10.5%	36.1%	18.4%	100.0%
	Total	Count	176	75	229	120	600
		% within Parents' monthly income	29.3%	12.5%	38.2%	20.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.591[a]	3	.035
Likelihood Ratio	8.594	3	.035
Linear-by-Linear Association	4.960	1	.026
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 34.63.

Table B_40: Parents' monthly income by good academic reputation

Crosstab

			Good academic reputation				
			Not important	Important	Somewhat important	Very important	Total
Parents' monthly income	Less than R 10 000	Count	12	33	68	210	323
		% within Parents' monthly income	3.7%	10.2%	21.1%	65.0%	100.0%
	R 10 000 and over	Count	16	32	74	155	277
		% within Parents' monthly income	5.8%	11.6%	26.7%	56.0%	100.0%
	Total	Count	28	65	142	365	600
		% within Parents' monthly income	4.7%	10.8%	23.7%	60.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.634[a]	3	.131
Likelihood Ratio	5.632	3	.131
Linear-by-Linear Association	4.251	1	.039
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 12.93.

Table B_41: Parents' monthly income by offered financial assistance

Crosstab

			Offered financial assistance				
			Not important	Important	Somewhat important	Very important	Total
Parents' monthly income	Less than R 10 000	Count	53	52	91	127	323
		% within Parents' monthly income	16.4%	16.1%	28.2%	39.3%	100.0%
	R 10 000 and over	Count	107	24	72	74	277
		% within Parents' monthly income	38.6%	8.7%	26.0%	26.7%	100.0%
	Total	Count	160	76	163	201	600
		% within Parents' monthly income	26.7%	12.7%	27.2%	33.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	41.448[a]	3	.000
Likelihood Ratio	41.982	3	.000
Linear-by-Linear Association	25.751	1	.000
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 35.09.

Table B_42: Parents' monthly income by low tuition

Crosstab

			Low tuition				
			Not important	Important	Somewhat important	Very important	Total
Parents' monthly income	Less than R 10 000	Count	69	49	98	107	323
		% within Parents' monthly income	21.4%	15.2%	30.3%	33.1%	100.0%
	R 10 000 and over	Count	88	35	82	72	277
		% within Parents' monthly income	31.8%	12.6%	29.6%	26.0%	100.0%
	Total	Count	157	84	180	179	600
		% within Parents' monthly income	26.2%	14.0%	30.0%	29.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.427[a]	3	.024
Likelihood Ratio	9.431	3	.024
Linear-by-Linear Association	7.112	1	.008
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 38.78.

Table B_43: Parents' monthly income by wanted to study near home

Crosstab

			Wanted to study near home				
			Not important	Important	Somewhat important	Very important	Total
Parents' monthly income	Less than R 10 000	Count	128	37	68	90	323
		% within Parents' monthly income	39.6%	11.5%	21.1%	27.9%	100.0%
	R 10 000 and over	Count	130	24	54	69	277
		% within Parents' monthly income	46.9%	8.7%	19.5%	24.9%	100.0%
	Total	Count	258	61	122	159	600
		% within Parents' monthly income	43.0%	10.2%	20.3%	26.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.661[a]	3	.300
Likelihood Ratio	3.669	3	.299
Linear-by-Linear Association	2.028	1	.154
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 28.16.

Table B_44: Parents' monthly income by UWC graduates are successful

Crosstab

			UWC graduates are successful				
			Not important	Important	Somewhat important	Very important	Total
Parents' monthly income	Less than R 10 000	Count	29	50	64	180	323
		% within Parents' monthly income	9.0%	15.5%	19.8%	55.7%	100.0%
	R 10 000 and over	Count	36	45	62	134	277
		% within Parents' monthly income	13.0%	16.2%	22.4%	48.4%	100.0%
	Total	Count	65	95	126	314	600
		% within Parents' monthly income	10.8%	15.8%	21.0%	52.3%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.286[a]	3	.232
Likelihood Ratio	4.283	3	.232
Linear-by-Linear Association	3.554	1	.059
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 30.01.

Table B_45: Parents' monthly income by parents / family members graduated from UWC

Crosstab

			Parents / family members graduated from UWC				
			Not important	Important	Somewhat important	Very important	Total
Parents' monthly income	Less than R 10 000	Count	190	17	69	47	323
		% within Parents' monthly income	58.8%	5.3%	21.4%	14.6%	100.0%
	R 10 000 and over	Count	138	14	57	68	277
		% within Parents' monthly income	49.8%	5.1%	20.6%	24.5%	100.0%
	Total	Count	328	31	126	115	600
		% within Parents' monthly income	54.7%	5.2%	21.0%	19.2%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.044[a]	3	.018
Likelihood Ratio	10.040	3	.018
Linear-by-Linear Association	7.791	1	.005
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 14.31.

Table B_46: Parents' monthly income by recruited by UWC

Crosstab

			Recruited by UWC				
			Not important	Important	Somewhat important	Very important	Total
Parents' monthly income	Less than R 10 000	Count	150	41	77	55	323
		% within Parents' monthly income	46.4%	12.7%	23.8%	17.0%	100.0%
	R 10 000 and over	Count	157	33	55	32	277
		% within Parents' monthly income	56.7%	11.9%	19.9%	11.6%	100.0%
	Total	Count	307	74	132	87	600
		% within Parents' monthly income	51.2%	12.3%	22.0%	14.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.288[a]	3	.063
Likelihood Ratio	7.333	3	.062
Linear-by-Linear Association	7.192	1	.007
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 34.16.

Table B_47: Parents' monthly income by UWC graduates get good jobs

Crosstab

			UWC graduates get good jobs				
			Not important	Important	Somewhat important	Very important	Total
Parents' monthly income	Less than R 10 000	Count	65	42	65	151	323
		% within Parents' monthly income	20.1%	13.0%	20.1%	46.7%	100.0%
	R 10 000 and over	Count	60	42	77	98	277
		% within Parents' monthly income	21.7%	15.2%	27.8%	35.4%	100.0%
	Total	Count	125	84	142	249	600
		% within Parents' monthly income	20.8%	14.0%	23.7%	41.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.022[a]	3	.029
Likelihood Ratio	9.053	3	.029
Linear-by-Linear Association	2.999	1	.083
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 38.78.

Table B_48: Parents' monthly income by not accepted anywhere else

Crosstab

			Not accepted anywhere else				
			Not important	Important	Somewhat important	Very important	Total
Parents' monthly income	Less than R 10 000	Count	206	20	60	37	323
		% within Parents' monthly income	63.8%	6.2%	18.6%	11.5%	100.0%
	R 10 000 and over	Count	179	20	47	31	277
		% within Parents' monthly income	64.6%	7.2%	17.0%	11.2%	100.0%
	Total	Count	385	40	107	68	600
		% within Parents' monthly income	64.2%	6.7%	17.8%	11.3%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.479[a]	3	.924
Likelihood Ratio	.478	3	.924
Linear-by-Linear Association	.109	1	.742
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 18.47.

Table B_49: Grade 12 average by family member's advice

Crosstab

			Family member's advice				
			Not important	Important	Somewhat important	Very important	Total
Grade 12 average	Less than 60 %	Count	18	15	67	140	240
		% within Grade 12 average	7.5%	6.2%	27.9%	58.3%	100.0%
	60 % and above	Count	50	33	101	176	360
		% within Grade 12 average	13.9%	9.2%	28.1%	48.9%	100.0%
	Total	Count	68	48	168	316	600
		% within Grade 12 average	11.3%	8.0%	28.0%	52.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.157[a]	3	.027
Likelihood Ratio	9.465	3	.024
Linear-by-Linear Association	8.981	1	.003
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 19.20.

Table B_50: Grade 12 average by teacher's advice

Crosstab

			Teacher's advice				
			Not important	Important	Somewhat important	Very important	Total
Grade 12 average	Less than 60 %	Count	52	23	89	76	240
		% within Grade 12 average	21.7%	9.6%	37.1%	31.7%	100.0%
	60 % and above	Count	102	35	119	104	360
		% within Grade 12 average	28.3%	9.7%	33.1%	28.9%	100.0%
	Total	Count	154	58	208	180	600
		% within Grade 12 average	25.7%	9.7%	34.7%	30.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.541[a]	3	.316
Likelihood Ratio	3.585	3	.310
Linear-by-Linear Association	2.860	1	.091
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 23.20.

Table B_51: Grade 12 average by friend's advice

Crosstab

			Friend's advice				
			Not important	Important	Somewhat important	Very important	Total
Grade 12 average	Less than 60 %	Count	65	32	93	50	240
		% within Grade 12 average	27.1%	13.3%	38.8%	20.8%	100.0%
	60 % and above	Count	111	43	136	70	360
		% within Grade 12 average	30.8%	11.9%	37.8%	19.4%	100.0%
	Total	Count	176	75	229	120	600
		% within Grade 12 average	29.3%	12.5%	38.2%	20.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.087[a]	3	.780
Likelihood Ratio	1.091	3	.779
Linear-by-Linear Association	.654	1	.419
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 30.00.

Table B_52: Grade 12 average by good academic reputation

Crosstab

			Good academic reputation				
			Not important	Important	Somewhat important	Very important	Total
Grade 12 average	Less than 60 %	Count	8	27	61	144	240
		% within Grade 12 average	3.3%	11.2%	25.4%	60.0%	100.0%
	60 % and above	Count	20	38	81	221	360
		% within Grade 12 average	5.6%	10.6%	22.5%	61.4%	100.0%
	Total	Count	28	65	142	365	600
		% within Grade 12 average	4.7%	10.8%	23.7%	60.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.151[a]	3	.542
Likelihood Ratio	2.214	3	.529
Linear-by-Linear Association	.109	1	.742
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 11.20.

Table B_53: Grade 12 average by offered financial assistance

Crosstab

			Offered financial assistance				
			Not important	Important	Somewhat important	Very important	Total
Grade 12 average	Less than 60 %	Count	58	28	77	77	240
		% within Grade 12 average	24.2%	11.7%	32.1%	32.1%	100.0%
	60 % and above	Count	102	48	86	124	360
		% within Grade 12 average	28.3%	13.3%	23.9%	34.4%	100.0%
	Total	Count	160	76	163	201	600
		% within Grade 12 average	26.7%	12.7%	27.2%	33.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.052[a]	3	.168
Likelihood Ratio	5.010	3	.171
Linear-by-Linear Association	.590	1	.443
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 30.40.

Table B_54: Grade 12 average by low tuition

Crosstab

			Low tuition				
			Not important	Important	Somewhat important	Very important	Total
Grade 12 average	Less than 60 %	Count	65	34	72	69	240
		% within Grade 12 average	27.1%	14.2%	30.0%	28.8%	100.0%
	60 % and above	Count	92	50	108	110	360
		% within Grade 12 average	25.6%	13.9%	30.0%	30.6%	100.0%
	Total	Count	157	84	180	179	600
		% within Grade 12 average	26.2%	14.0%	30.0%	29.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.294[a]	3	.961
Likelihood Ratio	.294	3	.961
Linear-by-Linear Association	.281	1	.596
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 33.60.

Table B_55: Grade 12 average by wanted to study near home

Crosstab

			Wanted to study near home				
			Not important	Important	Somewhat important	Very important	Total
Grade 12 average	Less than 60 %	Count	102	24	52	62	240
		% within Grade 12 average	42.5%	10.0%	21.7%	25.8%	100.0%
	60 % and above	Count	156	37	70	97	360
		% within Grade 12 average	43.3%	10.3%	19.4%	26.9%	100.0%
	Total	Count	258	61	122	159	600
		% within Grade 12 average	43.0%	10.2%	20.3%	26.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.451[a]	3	.930
Likelihood Ratio	.449	3	.930
Linear-by-Linear Association	.006	1	.937
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 24.40.

Table B_56: Grade 12 average by UWC graduates are successful

Crosstab

			UWC graduates are successful				
			Not important	Important	Somewhat important	Very important	Total
Grade 12 average	Less than 60 %	Count	25	33	45	137	240
		% within Grade 12 average	10.4%	13.8%	18.8%	57.1%	100.0%
	60 % and above	Count	40	62	81	177	360
		% within Grade 12 average	11.1%	17.2%	22.5%	49.2%	100.0%
	Total	Count	65	95	126	314	600
		% within Grade 12 average	10.8%	15.8%	21.0%	52.3%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.849[a]	3	.278
Likelihood Ratio	3.866	3	.276
Linear-by-Linear Association	2.147	1	.143
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 26.00.

Table B_57: Grade 12 average by parents / family members graduated from UWC

Crosstab

			Parents / family members graduated from UWC				
			Not important	Important	Somewhat important	Very important	Total
Grade 12 average	Less than 60 %	Count	124	14	51	51	240
		% within Grade 12 average	51.7%	5.8%	21.2%	21.2%	100.0%
	60 % and above	Count	204	17	75	64	360
		% within Grade 12 average	56.7%	4.7%	20.8%	17.8%	100.0%
	Total	Count	328	31	126	115	600
		% within Grade 12 average	54.7%	5.2%	21.0%	19.2%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.920[a]	3	.589
Likelihood Ratio	1.911	3	.591
Linear-by-Linear Association	1.444	1	.229
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 12.40.

Table B_58: Grade 12 average by recruited by UWC

Crosstab

			Recruited by UWC				
			Not important	Important	Somewhat important	Very important	Total
Grade 12 average	Less than 60 %	Count	110	37	53	40	240
		% within Grade 12 average	45.8%	15.4%	22.1%	16.7%	100.0%
	60 % and above	Count	197	37	79	47	360
		% within Grade 12 average	54.7%	10.3%	21.9%	13.1%	100.0%
	Total	Count	307	74	132	87	600
		% within Grade 12 average	51.2%	12.3%	22.0%	14.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.603[a]	3	.086
Likelihood Ratio	6.552	3	.088
Linear-by-Linear Association	2.894	1	.089
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 29.60.

Table B_59: Grade 12 average by UWC graduates get good jobs

Crosstab

			UWC graduates get good jobs				
			Not important	Important	Somewhat important	Very important	Total
Grade 12 average	Less than 60 %	Count	43	32	51	114	240
		% within Grade 12 average	17.9%	13.3%	21.2%	47.5%	100.0%
	60 % and above	Count	82	52	91	135	360
		% within Grade 12 average	22.8%	14.4%	25.3%	37.5%	100.0%
	Total	Count	125	84	142	249	600
		% within Grade 12 average	20.8%	14.0%	23.7%	41.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.217[a]	3	.102
Likelihood Ratio	6.214	3	.102
Linear-by-Linear Association	4.560	1	.033
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 33.60.

Table B_60: Grade 12 average by not accepted anywhere else

Crosstab

			Not accepted anywhere else				
			Not important	Important	Somewhat important	Very important	Total
Grade 12 average	Less than 60 %	Count	145	17	43	35	240
		% within Grade 12 average	60.4%	7.1%	17.9%	14.6%	100.0%
	60 % and above	Count	240	23	64	33	360
		% within Grade 12 average	66.7%	6.4%	17.8%	9.2%	100.0%
	Total	Count	385	40	107	68	600
		% within Grade 12 average	64.2%	6.7%	17.8%	11.3%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.710[a]	3	.194
Likelihood Ratio	4.633	3	.201
Linear-by-Linear Association	3.503	1	.061
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 16.00.

Appendix C

Correlation Matrices

Table C_1: Spearman correlation matrix

		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
Correlation	Q1	1.000											
	Q2	.509	1.000										
	Q3	.358	.507	1.000									
	Q4	.248	.365	.329	1.000								
	Q5	.242	.309	.262	.370	1.000							
	Q6	.212	.199	.255	.263	.606	1.000						
	Q7	.193	.206	.237	.240	.294	.361	1.000					
	Q8	.268	.396	.307	.422	.352	.341	.318	1.000				
	Q9	.288	.200	.263	.120	.144	.250	.334	.261	1.000			
	Q10	.263	.321	.285	.232	.415	.383	.365	.344	.402	1.000		
	Q11	.301	.363	.307	.343	.350	.400	.243	.619	.258	.440	1.000	
	Q12	.198	.230	.261	.122	.242	.291	.304	.175	.321	.413	.230	1.000
Sig. (1-tailed)	Q1												
	Q2	.000											
	Q3	.000	.000										
	Q4	.000	.000	.000									
	Q5	.000	.000	.000	.000								
	Q6	.000	.000	.000	.000	.000							
	Q7	.000	.000	.000	.000	.000	.000						
	Q8	.000	.000	.000	.000	.000	.000	.000					
	Q9	.000	.000	.000	.002	.000	.000	.000	.000				
	Q10	.000	.000	.000	.000	.000	.000	.000	.000	.000			
	Q11	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		
	Q12	.000	.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	

a. Determinant = .027

Table C_2: Polychoric Correlation Matrix

		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
Correlation	Q1	1.000											
	Q2	.641	1.000										
	Q3	.468	.598	1.000									
	Q4	.340	.466	.435	1.000								
	Q5	.298	.371	.304	.484	1.000							
	Q6	.260	.234	.295	.341	.704	1.000						
	Q7	.259	.250	.279	.331	.368	.445	1.000					
	Q8	.355	.476	.376	.538	.429	.419	.436	1.000				
	Q9	.414	.255	.328	.185	.188	.322	.430	.381	1.000			
	Q10	.353	.405	.353	.347	.523	.475	.446	.450	.507	1.000		
	Q11	.380	.434	.362	.450	.423	.480	.307	.727	.344	.563	1.000	
	Q12	.294	.302	.332	.188	.329	.395	.399	.238	.410	.520	.314	1.000
Sig. (1-tailed)	Q1												
	Q2	.000											
	Q3	.000	.000										
	Q4	.000	.000	.000									
	Q5	.000	.000	.000	.000								
	Q6	.000	.000	.000	.000	.000							
	Q7	.000	.000	.000	.000	.000	.000						
	Q8	.000	.000	.000	.000	.000	.000	.000					
	Q9	.000	.000	.000	.000	.000	.000	.000	.000				
	Q10	.000	.000	.000	.000	.000	.000	.000	.000	.000			
	Q11	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		
	Q12	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	

a. Determinant = .003

Appendix D

Rotated component matrices by demographic characteristics and grade 12 average using Spearman correlations

Table D_1: Rotated component matrix for male

Rotated Component Matrix[a]

	Component		
	1	2	3
Q1	.035	.789	.157
Q2	.259	.720	.199
Q3	.386	.628	.182
Q4	.617	.450	-.100
Q5	.757	.100	.216
Q6	.720	-.041	.431
Q7	.362	.089	.590
Q8	.643	.367	.155
Q9	.058	.385	.591
Q10	.470	.080	.615
Q11	.729	.278	.134
Q12	.030	.160	.794

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 10 iterations.

Table D_2: Rotated component matrix for female

Rotated Component Matrix[a]

	Component		
	1	2	3
Q1	.124	.678	.232
Q2	.209	.834	.065
Q3	.065	.688	.236
Q4	.574	.384	-.089
Q5	.752	.025	.242
Q6	.706	-.071	.365
Q7	.295	.056	.580
Q8	.618	.416	.071
Q9	-.033	.209	.757
Q10	.327	.246	.633
Q11	.562	.379	.201
Q12	.118	.116	.675

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 7 iterations.

Table D_3: Rotated component matrix for age group 16 – 20 years

Rotated Component Matrix[a]

	Component		
	1	2	3
Q1	.085	.727	.219
Q2	.261	.789	.084
Q3	.182	.682	.218
Q4	.620	.381	-.094
Q5	.736	.060	.250
Q6	.673	-.087	.441
Q7	.367	.050	.533
Q8	.672	.336	.098
Q9	-.016	.273	.709
Q10	.373	.194	.621
Q11	.637	.326	.166
Q12	.088	.122	.715

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 9 iterations.

Table D_4: Rotated component matrix for age group 21 years and above

Rotated Component Matrix[a]

	Component		
	1	2	3
Q1	.661	.154	.086
Q2	.832	.224	.024
Q3	.674	.261	.093
Q4	.589	-.089	.318
Q5	.100	.137	.835
Q6	.225	.113	.818
Q7	.084	.758	.197
Q8	.641	.164	.325
Q9	.169	.745	.045
Q10	.186	.671	.396
Q11	.446	.303	.489
Q12	.186	.745	-.005

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 4 iterations.

Table D_5: Rotated component matrix for Black African

Rotated Component Matrix[a]

	Component		
	1	2	3
Q1	.710	.070	.154
Q2	.851	.132	.093
Q3	.659	-.005	.346
Q4	.561	.496	-.169
Q5	.133	.776	.055
Q6	.016	.732	.256
Q7	.128	.366	.653
Q8	.668	.354	.097
Q9	.210	-.020	.754
Q10	.186	.503	.533
Q11	.425	.625	.203
Q12	.047	.128	.797

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Table D_6: Rotated component matrix for Coloured

Rotated Component Matrix[a]

	Component		
	1	2	3
Q1	.047	.265	.716
Q2	.219	.138	.786
Q3	.241	.172	.673
Q4	.607	-.096	.388
Q5	.742	.272	.058
Q6	.697	.419	-.054
Q7	.374	.515	.060
Q8	.702	.117	.280
Q9	.022	.705	.246
Q10	.327	.674	.189
Q11	.593	.178	.347
Q12	.099	.671	.146

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 7 iterations.

Table D_7: Rotated component matrix for parents' monthly income less than R10

Rotated Component Matrix[a]

	Component		
	1	2	3
Q1	.160	.158	.746
Q2	.189	.051	.842
Q3	.118	.325	.658
Q4	.622	-.070	.373
Q5	.747	.167	.080
Q6	.743	.322	-.060
Q7	.327	.577	.040
Q8	.602	.156	.356
Q9	.044	.768	.192
Q10	.375	.610	.202
Q11	.579	.270	.306
Q12	.088	.723	.122

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Table D_8: Rotated component matrix for parents' monthly income R10 000 and

Rotated Component Matrix[a]

	Component		
	1	2	3
Q1	.185	.109	.707
Q2	.152	.331	.737
Q3	.106	.333	.627
Q4	-.046	.698	.271
Q5	.530	.612	-.084
Q6	.673	.447	-.102
Q7	.621	.169	.137
Q8	.173	.736	.262
Q9	.506	-.022	.458
Q10	.697	.196	.224
Q11	.206	.705	.255
Q12	.662	-.075	.266

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 10 iterations.

Table D_9: Rotated component matrix for grade 12 average less than 60%

Rotated Component Matrix[a]

	Component		
	1	2	3
Q1	.222	.022	.695
Q2	.238	.091	.761
Q3	.089	.332	.693
Q4	.626	-.086	.258
Q5	.689	.304	.027
Q6	.635	.491	-.047
Q7	.358	.654	.008
Q8	.695	.108	.308
Q9	-.090	.624	.373
Q10	.413	.624	.078
Q11	.640	.187	.299
Q12	.073	.767	.158

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 12 iterations.

Table D_10: Rotated component matrix for grade 12 average 60% and more

Rotated Component Matrix[a]

	Component		
	1	2	3
Q1	.697	-.037	.353
Q2	.828	.156	.156
Q3	.672	.190	.169
Q4	.553	.489	-.047
Q5	.125	.797	.174
Q6	-.018	.767	.316
Q7	.131	.251	.544
Q8	.484	.554	.108
Q9	.158	.062	.755
Q10	.237	.326	.656
Q11	.407	.582	.188
Q12	.087	.081	.676

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 7 iterations.

Appendix E

Rotated component matrices by demographic characteristics and grade 12 average using Polychoric correlations

Table E_1: Rotated component matrix for male

Rotated Component Matrix[a]

	Component		
	1	2	3
Q1	.050	.834	.238
Q2	.289	.771	.205
Q3	.419	.679	.168
Q4	.693	.474	-.074
Q5	.793	.136	.240
Q6	.753	-.018	.463
Q7	.416	.109	.638
Q8	.655	.406	.232
Q9	.115	.416	.626
Q10	.543	.146	.620
Q11	.766	.305	.168
Q12	.075	.195	.833

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 9 iterations.

Table E_2: Rotated component matrix for female

Rotated Component Matrix[a]

	Component		
	1	2	3
Q1	.116	.739	.299
Q2	.233	.873	.073
Q3	.091	.726	.201
Q4	.618	.442	-.004
Q5	.806	.067	.195
Q6	.727	-.052	.406
Q7	.326	.068	.628
Q8	.630	.434	.167
Q9	-.018	.239	.824
Q10	.350	.317	.636
Q11	.567	.397	.281
Q12	.217	.133	.681

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Table E_3: Rotated component matrix for age group 16 – 20 years

Rotated Component Matrix[a]

	Component		
	1	2	3
Q1	.099	.782	.285
Q2	.291	.829	.088
Q3	.197	.726	.217
Q4	.686	.425	-.052
Q5	.774	.087	.263
Q6	.687	-.071	.486
Q7	.408	.070	.567
Q8	.695	.364	.169
Q9	.024	.306	.753
Q10	.437	.241	.629
Q11	.664	.350	.215
Q12	.151	.147	.745

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 8 iterations.

Table E_4: Rotated component matrix for age group 21 years and above

Rotated Component Matrix[a]

	Component		
	1	2	3
Q1	.735	.220	.058
Q2	.864	.254	.120
Q3	.697	.257	.200
Q4	.609	-.072	.436
Q5	.094	.169	.855
Q6	.211	.134	.849
Q7	.084	.788	.294
Q8	.572	.264	.461
Q9	.252	.795	.069
Q10	.222	.662	.484
Q11	.380	.354	.574
Q12	.230	.784	.046

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Table E_5: Rotated component matrix for Black African

Rotated Component Matrix[a]

	Component		
	1	2	3
Q1	.781	.094	.231
Q2	.900	.185	.083
Q3	.703	.024	.330
Q4	.648	.547	-.139
Q5	.176	.824	.019
Q6	.029	.761	.286
Q7	.195	.478	.638
Q8	.710	.382	.174
Q9	.281	.010	.806
Q10	.250	.581	.521
Q11	.454	.662	.268
Q12	.062	.193	.843

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Table E_6: Rotated component matrix for Coloured

Rotated Component Matrix[a]

	Component		
	1	2	3
Q1	.044	.332	.766
Q2	.250	.152	.821
Q3	.288	.160	.715
Q4	.701	-.054	.392
Q5	.762	.315	.080
Q6	.689	.488	-.045
Q7	.392	.575	.058
Q8	.726	.213	.271
Q9	.053	.745	.279
Q10	.366	.696	.240
Q11	.616	.246	.346
Q12	.160	.682	.189

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

Table E_7: Rotated component matrix for parents' monthly income less than R10

Rotated Component Matrix[a]

	Component		
	1	2	3
Q1	.171	.788	.230
Q2	.212	.882	.063
Q3	.133	.707	.320
Q4	.673	.455	-.020
Q5	.787	.119	.185
Q6	.771	-.035	.358
Q7	.380	.070	.591
Q8	.624	.388	.224
Q9	.100	.246	.805
Q10	.436	.240	.623
Q11	.610	.314	.325
Q12	.147	.146	.756

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Table E_8: Rotated component matrix for parents' monthly income R10 000 and

Rotated Component Matrix[a]

	Component		
	1	2	3
Q1	.225	.105	.800
Q2	.176	.346	.782
Q3	.112	.373	.654
Q4	.001	.777	.268
Q5	.550	.644	-.054
Q6	.719	.438	-.074
Q7	.670	.202	.154
Q8	.251	.740	.294
Q9	.568	.017	.469
Q10	.718	.279	.264
Q11	.257	.718	.288
Q12	.722	-.019	.273

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 11 iterations.

Table E_9: Rotated component matrix for grade 12 average less than 60%

Rotated Component Matrix[a]

	Component		
	1	2	3
Q1	.196	.096	.772
Q2	.260	.076	.798
Q3	.116	.327	.741
Q4	.687	-.065	.327
Q5	.765	.258	.065
Q6	.696	.481	-.016
Q7	.442	.670	.032
Q8	.692	.186	.372
Q9	-.039	.705	.391
Q10	.504	.609	.110
Q11	.660	.230	.336
Q12	.191	.803	.162

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 9 iterations.

Table E_10: Rotated component matrix for grade 12 average 60% and more

Rotated Component Matrix[a]

	Component		
	1	2	3
Q1	.737	-.017	.427
Q2	.865	.192	.184
Q3	.711	.223	.167
Q4	.586	.561	-.010
Q5	.148	.824	.192
Q6	-.018	.775	.364
Q7	.142	.300	.571
Q8	.484	.600	.163
Q9	.191	.107	.795
Q10	.298	.397	.656
Q11	.410	.620	.230
Q12	.116	.121	.706

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 8 iterations.

Appendix F

Descriptive statistics for bootstrap samples

Table F_1: Total variance explained based on 25 bootstrap samples

Descriptive Statistics

	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
Total variance explained using Spearman correlation matrix	25	55.37	60.60	57.7113	.23111	1.15554
Total variance explained using Polychoric correlation matrix	25	63.54	68.92	65.8012	.25517	1.27587
Valid N (listwise)	25					

Table F_2: Total variance explained based on 50 bootstrap samples

Descriptive Statistics

	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
Total variance explained using Spearman correlation matrix	50	55.00	60.60	57.3994	.15838	1.11993
Total variance explained using Polychoric correlation matrix	50	62.66	68.92	65.4510	.18192	1.28638
Valid N (listwise)	50					

Table F_3: Total variance explained based on 75 bootstrap samples

Descriptive Statistics

	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
Total variance explained using Spearman correlation matrix	75	54.26	65.85	57.4368	.17462	1.51224
Total variance explained using Polychoric correlation matrix	75	61.79	73.35	65.4258	.18541	1.60567
Valid N (listwise)	75					

Table F_4: Highest loadings in the three factors extracted based on 75 bootstrap samples

Descriptive Statistics

	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
First loading (offered financial assistance) in the first factor using Spearman correlation matrix	75	.06	.82	.6488	.02595	.22475
First loading (offered financial assistance) in the first factor using Polychoric correlation matrix	75	.08	.86	.6467	.03018	.26137
First loading (offered financial assistance) in the second factor using Spearman correlation matrix	75	-.08	.85	.4589	.04112	.35608
First loading (offered financial assistance) in the second factor using Polychoric correlation matrix	75	-.05	.90	.5073	.04190	.36284
First loading (offered financial assistance) in the third factor using Spearman correlation matrix	75	.00	.78	.5021	.03121	.27030
First loading (offered financial assistance) in the third factor using Polychoric correlation matrix	75	-.04	.87	.5987	.02966	.25687
Valid N (listwise)	75					