THE CONTRIBUTION OF STUDENT ACTIVITIES TO CITIZENSHIP EDUCATION:
A STUDY OF ENGAGEMENT AT A SOUTH AFRICAN RESEARCH UNIVERSITY

By

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KEY WORDS

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Democratic citizenship
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Student engagement
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Curriculum
Out-of-class activities
Civic engagement
Service learning

ABSTRACT

The contribution of student activities to citizenship education: A study of engagement at a South African Research University

R.S. Lange

A key objective of the South African democracy is the development of democratic citizens and this has been identified as one of the roles that higher education can fulfill. Research revealed that there are student activities that contribute to citizenship education and there is extensive literature on citizenship education that considers activities within the curriculum, co-curriculum and community work that contribute to citizenship. However, much of the research on this topic in South African higher education is limited and requires more empirical research. This study seeks to determine to what extent undergraduate students in a research university in South Africa are involved in activities that contribute to citizenship education.

The research design involves a case study at the University of Cape Town (UCT) whereby an electronic survey, called the Student Experience at the Research University-Africa (SERU) survey, was indigenised to fit the South African context and it was conducted at UCT. The survey had a census design and all undergraduate students at the university were invited to participate. At the end of 2012 a sample of 861 surveys were analyzed using SPSS to determine the activities students were involved in during the research period.

The research question required the study to identify what activities students participated in that contributed to citizenship education. The dependent variables in the study include student attitudes towards citizenship education while the independent variables consist of the activities students participated in that contributed to citizenship education. In this respect the student attitudes and activities concerning critical thinking, knowledge and support of democracy and commitment to social responsibility and community development were taken into account. Various kinds of analyses were conducted that included descriptive analysis, reliability testing, correlation testing, factor analysis and regression analysis.

There are a number of activities that have been identified that are presumed to have an impact on citizenship education. These include participation in academic activities such as interaction with lecturers and having students contribute to class discussions, as well as student participation in political organisations, student interaction with diverse others, as well as volunteering and involvement in community work. The results of the study showed that students who participated in the survey placed high importance on critical thinking as a citizenship attribute and spent a large proportion of their time participating in academic activities that are expected to have an impact on citizenship education. In terms of students supporting democracy, it was found that students at UCT showed positive attitudes towards supporting democracy and the results of the analysis showed that 87% of the students that participated in the survey provided an acceptable definition of democracy and that they were frequently engaged in political discussions. However, the results also revealed that students had limited involvement in activities that are assumed to support democracy, such as attending demonstrations and participation in political organisations. In terms of appreciating diversity, students showed positive attitudes and that they frequently interacted with diverse others but that they had limited involvement in organisations that encourage diversity interaction. Similarly, students indicated positive attitudes towards commitment to social responsibility and community development but in terms of participation, very few students indicated being involved in volunteering and community work

A few important conclusions can be drawn from the study. Firstly, there was a noticeable discrepancy between student attitudes towards citizenship and students' involvement in activities that contribute to citizenship education. Secondly, merely having students participate in certain activities such as participation in organisations may not be sufficient to foster positive attitudes towards citizenship. Furthermore, having students participate in discussions has a significant impact on citizenship education. The study also concluded that an increased involvement in certain organisations, such as organisations that encourage interaction with diversity may have the effect of decreasing students' appreciation of diversity. The results of the analysis and conclusions were followed by a discussion involving recommendations for future research.

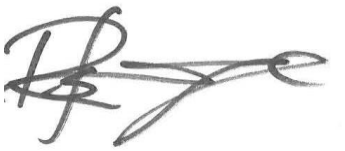
November 2014

DECLARATION

I declare that ***The contribution of student activities to citizenship education: A study of engagement at a South African Research University*** is my own work, that it has not been submitted for any degree or examination in any university, and that all the sources I have used or quoted have been indicated and acknowledged by complete references.

Randall Stephen Lange November 2014

Signed:



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ABBREVIATIONS AND ACRONYMS

ANOVA	Analysis of Variance
CHET	Centre for Higher Education Transformation
CSHE	Center for the Studies in Higher Education
DV	Dependent Variable
HERANA	Higher Education Research and Advocacy Network
IV	Independent Variable
KMO	Kaiser-Meyer-Olkin
PCA	Principal Components Analysis
SERU	Student Experience at the Research University
SPSS	Statistical Package for Social Sciences programme
UCT	University of Cape Town
UC	University of California

CHAPTER ONE

Introduction

1.1 Background to the study

South Africa is a relatively young democracy that is still characterized by inequality. The inequality manifests itself in many ways. Many people in the country still bear some of the scars of Apartheid and this is shown in their behaviours and habits. Incidences involving hatred and racism do still occur in South Africa. Another problem that the country has been experiencing is xenophobic attacks involving certain groups of people (Nyamnjoh, 2010, p.66).

On the other hand there is a younger generation, of whom a large number were born after 1994. These people are commonly referred to as the "born free" generation. It is important to remember that the term "born free" is a contested term and individuals within this generation may have limited understanding of the problems that were experienced during the Apartheid years. Many people of the older generation may view the born fee generation as being apathetic, often referring to them as being indifferent to the political situation in the country, saying that the younger generation has no appreciation of the freedom they have (Mattes, 2011, p.4).

South African higher education is also characterized by inequality and one of the goals of the new South African democracy involves redressing the imbalance of the past caused by the Apartheid regime through elimination of institutional inequalities, ensuring that student enrolment and staff appointment become more representative of the South African population. Gender inequality is also addressed (Bunting, 1994, p.258).

UCT was founded in 1829. It is regarded as one of the leading research institutions on the continent and has a student population that may not necessarily reflect the economic inequality

and diversity that exist in the country. This may influence students' understanding of the realities faced by others. Interacting with people who are different and experiencing an education where students are exposed to the realities faced by others may affect the way students think about these issues which could help them in becoming more critical in their thinking. It could also lead to them supporting the country's young democracy and seeking to achieve social justice by helping to improve the lives of people who do not enjoy the same privileges they have.

The development of democratic citizens who can play a meaningful role in our country's young democracy is therefore a priority that the South African government also articulates in its Education White Paper 3 of 1997, referring to the role that higher education has to play in developing these skills and attitudes. In order for higher education institutions to become effective in their role of "producing" democratic citizens, more research is required to address concerns around the issue of what democratic citizenship involves and what higher education institutions can do to achieve this objective.

This study seeks to find out what it is within the student experience that may contribute to citizenship education and it will specifically look at the activities students are involved in, and whether participation in such activities result in the necessary attitudes needed to support democracy, appreciate diversity, contribute to social justice and help develop citizens' critical thinking abilities.

In order to conduct such a study it is useful to look first at what studies have been done before and whether these studies have indeed contributed to an understanding of the activities which students are involved in that may contribute to citizenship education.

This requires looking at studies conducted in other countries, as well as an examination of the studies done in South Africa. Research that has been done in other countries deals extensively with the issue of citizenship and how the attitudes involving democratic citizenship can be fostered in students attending higher education institutions. Several studies have been done in the United States on the importance of incorporating citizenship education in both curricular and

extra-curricular activities, and extensive literature on the importance of student engagement in citizenship education exists abroad (Pascarella and Terenzini, 2005).

In the South African situation there has also been extensive research involving citizenship education (Waghid, 2009), but the problem is that little empirical research exists which focuses specifically on the higher education sector, and much of the research that has been done is normative in nature (Luescher-Mamashela, Mattes, Kiiru, Mwollo-ntallima, Ng'ethe and Romo, 2011).

Research in both South Africa and the United States has found that involving students in certain activities has had the effect of fostering the characteristics and skills that form part of democratic citizenship. A democratic citizen would be someone who has the ability to think critically, has an understanding of politics, participates in democratic processes, and be someone who is interested in achieving social justice and equity (Lawson, 2001; Starkey, 2002; Schoeman, 2006; Brennan and Naidoo, 2008; Kam and Palmer, 2008; Enslin, 2010; Humphreys, 2011). The objective of higher education is to have a situation where students leave university having attained certain attributes that may include skills that form part of democratic citizenship. These include the ability to think critically, participating in activities such as volunteering and community work that may contribute to social justice, addressing economic inequalities, supporting democracy and developing an appreciation of diversity. The following section looks at the skills needed for critical thinking and refers to the contribution made by Bloom's taxonomy towards understanding the levels of thinking.

Bloom's taxonomy identifies specific critical thinking skills and these are found in both the original and revised taxonomies that include, amongst others, analysis and evaluation skills (Anderson and Krathwohl, 2001). Bloom's taxonomy provides a hierarchy whereby different cognitive abilities are identified and claims that, in order to proceed to higher levels, the lower, more basic levels of thinking have to be mastered first (Forehand, 2010; Anderson and Krathwohl, 2001). Measuring critical thinking skills cannot be achieved by administering a survey such as the one that was used in this study and it was more useful to look at activities students were participating in, both inside and outside of the classroom that could improve their

critical thinking skills. These activities included student interaction with their peers and lecturers; involvement in class discussions and other academic activities, such as those that involved breaking down material and establishing the relationship between the parts and its larger structure (Pascarella and Terenzini, 1991; Kuh, 1995; Tinto, 1997).

Student support for democracy focuses on two aspects related to democracy. One aspect involves students' understanding of democracy and students' ability to differentiate between democratic and non-democratic forms of government. It also investigates if students can identify key features of democracy such as free and fair elections, equality and voting rights. The other aspect relates to student participation in democracy. This includes activities such as assuming leadership positions in political and student governance structures, as well as various other forms of student participation involving communing, contacting and protesting (Bratton and Mattes, 2001; Dalton, Shin, and Jou, 2007).

The achievement of social justice and equity can be accomplished in different ways. One method involves student participation in activities that are aimed at correcting the imbalances of the past. In the South African context, these imbalances refer to remnants of the old Apartheid system involving widespread poverty in certain communities where there is still a lack of adequate housing and essential social services. One of the ways correcting some of the imbalances of the past can be achieved through having students participate in community improvement programmes. In light of the xenophobic attacks and hate crimes that have been taking place in South Africa recently, another way of achieving social justice and equity involves encouraging positive attitudes towards the acceptance and appreciation of diversity among different groups of people. Acceptance and appreciation of diversity may be deemed essential in a multicultural country like South Africa. The ability to appreciate and interact with diversity is one of the elements regarded by many scholars as an essential requirement for citizenship education since it enables students to learn from each other's background and also gain an understanding of the perspectives and experiences of others (Davids and Waghid, 2012). Structural and classroom diversity offers several benefits but interactional diversity is often regarded as being the most important as it allows for students from diverse backgrounds to engage with one another (Hu and Kuh, 2004; Kuh and Pike, 2006). Furthermore, Starkey relates the notion of language

education to an acceptance of diversity and also claims that the teaching of languages may be a chance for people to learn more about diversity and democratic citizenship (2002, p. 20). This is especially relevant in the South African context since South Africa has eleven official languages and a large group of foreigners living in the country. The following section looks at the importance and relevance of involvement in community work.

Rhoads highlights the importance of community service and the obligation people have to one another as an essential element of democracy (1998, p. 294). The commitment to social responsibility and community development variable covers involvement in community programmes that form part of the student's academic work, which is often referred to as service learning or fieldwork; also community work that the student participates in on an extracurricular or off-campus basis, such as volunteering.

As mentioned above this study considers activities within the curriculum, co-curriculum and community involvement programmes that contribute to citizenship; and it also looks at the skills and competencies preferred for democratic citizenship. It uses a survey called the Student Experience at the Research University-Africa (SERU-Africa) survey, which has been indigenised and adapted to the South African context to gain information on student opinions on democratic citizenship and also to establish what activities students are involved in that may contribute to the attributes of democratic citizenship.

1.2 Statement of the research problem

The development of a democratic citizenry remains a key objective for the South African democracy and the role of developing critically constructive democratic citizens is identified as one of the purposes of higher education (Education White Paper 3, 1997, p.7). However, in order to contribute meaningfully to the creation of democratic citizens it is imperative to establish how higher education can foster the development of key citizenship attributes.

Research in other countries has shown that there are certain activities that students are involved in that contribute to citizenship education, and that these activities are found within the

curriculum, co-curriculum and community work (Davidson and Arthur, 2003; Denson, Vogelgesang and Saenz, 2005; Keen and Hall, 2007; Bateson and Taylor, 2011; Finley, 2011; Planas, Soler, Fullana, Pallisera and Vilà, 2011). While the amount of research and literature on the importance of student engagement in citizenship education in the United States is extensive (Pascarella and Terenzini, 2005), the amount of empirical research on the topic in South African higher education is still limited, and more quantitative research on citizenship education is needed (Luescher-Mamashela et al., 2011). The findings of this study may shed more light on the extent to which students are involved in activities that may contribute to citizenship education.

1.3 Aims, objectives and research question

This study seeks to answer the following question:

What activities are students involved in that contribute to citizenship education?

The purpose of this question is to explore what activities students are involved so that it can be determined if participation in such activities contribute to positive attitudes towards democratic citizenship. The study will distinguish between different kinds of activities, the extent of student participation in these activities, and different kinds of attributes of democratic citizenship which, according to relevant literature, are said to be fostered by participation in such activities.

In addition to the descriptive question, this dissertation also explores the extent to which students who reported higher levels of participation in student activities also reported higher levels of skills. Firstly, the study looks at what specific curricular, co-curricular and community involvement activities are said to foster citizenship education for students; secondly, it looks at the extent to which students are involved in these activities. Since there are certain attitudes and competencies related to democratic citizenship such as political awareness, political participation, support for democracy and critical thinking skills the study also seeks to develop related measures and then statistically explore what activities that students are involved in may be seen to develop these attributes (i.e. attitudes and skills).

As mentioned above the main aim of the study is to determine what activities students are involved in that contribute to citizenship education. This aim will be achieved through the certain objectives.

The first objective involves establishing what activities students are involved in that contribute to citizenship education (and the development of key skills and competencies such as critical thinking skills).

The second objective involves determining the extent of student participation in community work, activities that may contribute to critical thinking, support for democracy, as well as students' appreciation of diversity and their interaction with diverse others as measured, for example, by the amount of time that students spend on certain curricular and co-curricular activities and community work (e.g. volunteering).

The third objective involves determining student attitudes with respect to support for democracy, the importance of involvement in social responsibility programmes and community work, their critical thinking skills and students' appreciation of diversity.

The fourth objective involves determining the extent to which students portray certain kinds of attributes of democratic citizenship (as measured in terms of certain attitudes, skills and competencies noted in relevant literature) and trying to relate the activities that students are involved in to their attributes of democratic citizenship.
The different variables involved in the study are discussed in more detail below.

1.4 Rationale of the study

Democratic citizenship involves the acquisition of a variety of skills and attitudes such as the ability to think critically, support democracy, volunteer in community work, as well as appreciate diversity and interact with diverse others. In South Africa citizens are needed who can participate in and make a contribution to our young democracy. Citizenship education is therefore a priority. The question around which student activities contribute to citizenship education requires more

exploration in South Africa where the field of student development is comparatively new. This study aims to establish what activities students should be involved in that may help them to acquire these skills.

Some research has been done on how student participation in student governance and leadership has influenced students' awareness and involvement in politics. This is a crucial element of democratic citizenship as the possession and processing of political knowledge and information contained in mass media, as well as the ability to engage in critical observation and conversation is essential to the notion of citizenship (Luescher-Mamashela et al., 2011). However, there has been limited research done concerning the other activities that may contribute to citizenship education and this study looks at a variety of aspects related to citizenship education. It looks at the activities students are involved in and the extent of their participation in these activities and it also looks at student attitudes towards citizenship and tries to relate their attitudes to their participation in student activities.

1.5 Research design and methodology

Since the objective of the study is to determine what activities students are involved in that may result in positive attitudes to citizenship the research questions require the researcher (me) to be able to generalize. This is one of the main reasons why a survey was considered to be the most suitable instrument to use. The instrument chosen for this study is an established survey called the Student Experience at the Research University (SERU) survey. This survey is located within the larger SERU-AFRICA project involving HERANA, Centre for Higher Education Transformation (CHET), the University of California (UC) Berkeley's Center for the Studies in Higher Education (CSHE), the Student Experience at the Research University (SERU), at UCT.

UC Berkeley's CSHE and SERU selected research universities in order to generate data on students' undergraduate experience. There are a few reasons why a survey was chosen as the most suitable research approach that could be taken for this study By using a survey a large number of respondents could be reached to obtain the objective of the study which is to determine what activities students are involved in that may result in positive attitudes to citizenship. . This is also a descriptive, cross-sectional study in the sense that it uses a survey

with a census design that is based on observations representing a single point in time (Babbie and Mouton, 2001, p. 92).

The above reasons strongly support the rationale of the study that a survey design was considered the best design to use in answering the research questions. Another reason for using this design is that the study is similar to other studies undertaken in countries such as the United States that also looked at how citizenship education takes place in curricular, co-curricular and community involvement activities that students engaged in.

A questionnaire was used as the data collection tool and the data collection method was an electronic survey that was administered by the UC Berkeley's CSHE.

It is important to take account of the fact that this study could have been conducted at any South African university but the reason why UCT was chosen is that it is located within the larger SERU-AFRICA project which involves, amongst others, UCT, CHET and HERANA. Participation in a survey such as SERU provides a number of advantages, such as the sharing of resources and expertise. The questions in the survey are also useful in identifying student attitudes and the extent of student participation in various activities. However the survey required adaptation and indigenisation, since the South African context is different to the American one. This survey also allows for flexibility and the inclusion of a set of questions in their questionnaire that follows from my research questions. New questions dealing specifically with matters related to citizenship were included in the survey.

The SERU survey has a census design and all undergraduate students, across all faculties, at UCT were invited to participate in the survey. A survey such as this has a large and representative group of respondents. The research objectives were achieved by using a sample of the student population. It is also an efficient method to answer the research questions and establish what activities students were involved in and to what extent they were involved in these activities. All matters relating to sampling and the research process are discussed in detail in Chapter four of this thesis.

1.6 Structure of the dissertation

The background to the study the research problem, aims, objectives and research question, rationale of the study and research design and methodology have been provided in this chapter.

In Chapter two a thorough literature review is done concerning what democratic citizenship involves. The different dimensions of citizenship education are explored, followed by a discussion on citizenship education for social justice and equity (Lawson, 2001; Ramphele, 2001; Starkey, 2002; Schoeman, 2006; Brennan and Naidoo, 2008; Kam and Palmer, 2008; Enslin, 2010; Humphreys, 2011). The curricular, co-curricular and community involvement activities that students were involved in are examined (Braskamp, 2010). Citizenship education within the curriculum is explored and different ways are looked at how students' critical thinking skills can be developed by using certain instructional methods (Pascarella and Terenzini , 1991; Kuh, 1995; Astin, 1997; Tinto, 1997; Levis-Fitzgerald, Anderson and Rhoads, 2003). Thereafter citizenship education involving community work and support for democracy is investigated and the differences between service learning and volunteering are explored (Rhoads, 1998; Davidson and Arthur, 2003; Denson et al., 2005; Keen and Hall, 2007; Jay, 2008; Finley, 2011; Bateson and Taylor, 2011; Humphreys, 2011; Planas et al., 2011, Mattes and Luescher, 2012). The importance of having students interact with diverse others in a multicultural country such as South Africa is then highlighted (Gurin, Dey, Hurtado & Gurin, 2002; Hu and Kuh, 2003; Pike and Kuh, 2006; Schoeman, 2006; Gurin, Nagda and Lopez, 2004; Davids and Waghid, 2012.). This is followed by a discussion dealing with global citizenship education and the chapter concludes with a discussion concerning the benefits of student engagement after students have finished their studies at university (Verba, Schlozman and Brady, 1995; Denson et al., 2005; Denson and Bowman, 2011).

In Chapter three the theoretical framework for this study is presented. The purpose of the framework is to serve as a guide for asking questions, analyzing the survey responses obtained in the survey and also connecting it with the literature that has been reviewed. This chapter starts with a discussion on the meaning of the concept 'citizenship' which is followed by an examination of the student experience and its relation to student activities and attitudes toward citizenship. The SERU approach of looking at the student experience is then investigated, highlighting the main difference between SERU and similar surveys of its kind. In this section

the two important elements linked to the study of student experience are also examined. These relate to the amount of time and effort students spend on various activities; and institutional practices and policies at colleges and universities which have an influence on the level of student engagement. Thereafter the analytical framework of the study is presented which shows the relation of citizenship attributes to student activities. The chapter is concluded with the research questions that were formulated for this study.

Chapter four focuses on the research design and methodology. The chapter starts with the research design and the rationale for the research approach that was followed. This is followed by a description of the main elements of the questionnaire. The population, sampling and sampling procedures that were used are considered. This is followed by a discussion dealing with the ideal and realized sample and the data collection procedures that were used. Thereafter the reliability and validity of the sampled data are investigated, which is followed by a description of the data analysis that will be done. The chapter concludes with a discussion concerning the ethical considerations relevant to the study.

Chapter five presents the data which is analyzed quantitatively by using the Statistical Package for Social Sciences programme (SPSS). The analysis is performed on the basis of the theoretical framework that has been discussed in chapter three. The answers to the key research questions are looked for in this chapter. This chapter involves a series of tests that lead to a regression analysis whereby the activities that contribute significantly to citizenship education are revealed, resulting in a few interesting findings.

Chapter six discusses the findings of the study. In this chapter the implications and conclusions resulting from the study are discussed. This chapter also describes the student attitudes towards the citizenship indicators that have been identified in the literature review in Chapter two. The chapter starts with the findings regarding students' perceived critical thinking skills, followed by student support for democracy, appreciation of diversity and concluding with commitment to social responsibility and community development.

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Chapter seven concludes the dissertation with possible implications and the limitations of the study. The chapter also explores possible areas for future research that result from this study.

In the following chapter the literature relevant to the study is reviewed.

CHAPTER TWO

The contribution of student activities to citizenship education: A study of engagement at a South African Research University: A Literature Review

2.1 Introduction

In this chapter a review of the literature relevant to studies undertaken in the field of citizenship education is presented. The literature review is structured according to specific themes, starting with a discussion of the importance of citizenship education and the role that higher education institutions can play. This is followed by general as well as more detailed definitions of citizenship as provided by Ramphele (2001), Starkey (2002), Kam and Palmer (2008), Enslin (2010), Humphreys (2011), and others who explore what the concept 'citizenship' entails. This is done to show how definitions involving citizenship are complex and varied (also see Heywood, 1992; Dalton et al., 2007). Ichilov (1990), Luescher-Mamashela et al., (2011), and Westheimer and Kahne (2004) look at the different kinds of citizenship one may encounter, illustrating that, depending on one's extent and area of participation, there are different classifications of citizens based upon their level of participation. Brennan and Naidoo (2008) emphasize the importance of relating citizenship to notions of social justice and equity. This is important because all citizens should strive for equity and social justice in light of South Africa's political past involving apartheid and social injustice.

Thereafter a discussion follows focusing on how citizenship education can take place along Braskamp's (2010) dimensions of curricular, co-curricular and community engagement. This is prompted *inter alia* by Astin (1997) who contends that students should be active participants in the educational process while Levis-Fitzgerald, Anderson and Rhoads (2003) focus on how critical thinking and the use that specific instructional tools can give students a sense of belonging that can facilitate dialogue and open discussion. Starkey (2002) is among the scholars who emphasize language teaching as a potential site of learning for democratic citizenship.

Volman and ten Dam (2004) propose an instructional format from a constructivist point of view in enhancing citizenship education; and the importance of co-curricular student involvement is discussed by Davidson and Arthur (2003), Denson et al. (2005), Keen and Hall (2007), Finley (2011), Bateson and Taylor (2011) and Planas et al. (2011) who explore the relevance and value of service learning. Finley (2011) suggestively differentiates between community-based learning, service learning and volunteering. Nicol (2010) establishes the linkage between curricular and out-of-class student activities to the notion of graduate attributes. Eventually, the importance of interacting with diversity is explored by Gurin, Dey, Hurtado and Gurin (2002), Hu and Kuh (2003), Pike and Kuh (2006), and Gurin et al., (2004), followed by the relevance of global awareness and education for global citizenship that is discussed by Denson and Bowman (2011), who once again emphasize the importance and relevance of diversity education in these respects. Verba et al., (1995) and Denson et al., (2005) conclude the literature review by exploring the long-term effects of engagement following university training. These themes in the literature are coherently tied together in the following sections with the purpose of establishing a conceptual framework and empirical indicators to study those students' experiences that have the potential to develop the competencies required for citizenship.

2.2 The importance of citizenship education and the role that higher education can play

This section first looks at the importance of citizenship education. Thereafter it briefly introduces the role that higher education institutions can play in contributing to citizenship education within the curriculum and co-curriculum, and providing opportunities for students to become involved in activities that may contribute to citizenship education, such as community work and diversity education.

Extensive literature on the importance of student engagement in citizenship education exists, and several studies have been done in the United States on the importance of incorporating citizenship education in both curricular and extra-curricular activities. Pascarella and Terenzini articulate this when they describe the amount of literature produced during the decade of the 1990's as being "expansive", and that this expansiveness manifests itself along a number of different dimensions (2005, p. 1). Pascarella and Terenzini have found that students experience

change and development during their university years. The changes that occur could have a profound impact on the kind of citizens that come out of higher education institutions. The experiences that students go through occur on many levels and can be attributable to their involvement in the curriculum that is taught in the classroom or lecture hall, their involvement in co-curricular activities as well as other forms of community involvement. These experiences may also be instrumental in citizenship education. Pascarella and Terenzini state that changes related to university attendance usually involve the whole person and happen in an integrated manner (2005, p. 578). Thus, even though these changes occur in an integrated manner, different students participate in activities at varying levels of involvement.

There is a need in South Africa to develop citizens that can contribute to the country's new democracy. Since research as to what student activities contribute to citizenship education is limited in South Africa the responsibility for developing citizens that can contribute to the country's new democracy has fallen in parts on the education system, including the higher education system as articulated in relevant policy and legislation. The Higher Education Act (Act 101 of 1997) states in its preamble that it is desirable to "…encourage democracy, academic freedom, freedom of speech and expression, creativity, scholarship and research" (Higher Education Act 101 of 1997, p.2). The White Paper also maintains that the purpose of higher education is to "contribute to the socialisation of enlightened, responsible and constructively critical citizens and to contribute to the creation, sharing and evaluation of knowledge" (White Paper 3 of 1997, p.7).

Citizenship comprises a range of skills such as the ability to think critically and possessing political awareness (Rhoads, 1998; Denson et al, 2005; Jay, 2008; Denson and Bowman, 2011; Finley, 2011). The activities that students experience at university, either within the curriculum, co-curriculum or community, may be instrumental in fostering these competencies. The question that follows from this would involve determining exactly what student activities form part of these processes. In order to understand what student activities form part of these processes, one first has to scrutinise each of these elements and look at them individually.

2.3 Defining citizenship

Definitions of citizenship range from a general definition whereby citizenship is merely defined as membership of a particular country or community to one that includes a wide range of duties and responsibilities. The discussion that follows will show that citizenship carries with it certain rights and duties (Enslin, 2010, p. 78) which include the political responsibility tied with being a citizen and the importance of being a good citizen who is not only involved in the community, but who also contributes towards achieving equity in society as well as promoting diversity. This latter point is especially important in the South African situation with its Apartheid legacy. The discussion also shows that there are different conceptions of citizens and it also shows that the responsibility for citizenship education has become the role of higher education within South Africa. The next section looks at definitions related to citizenship.

Firstly, a few general definitions of citizenship are explored and thereafter what the responsibilities of citizens are will be investigated. The most general conceptualization of citizenship is provided by Starkey who states that, "Citizens belong to communities, defined as groupings of people who recognise that they have something in common" (2002, p. 7). This general definition could be extended to include community and nation state and Starkey claims that, "…although citizenship is often closely associated with nationality, it is a freestanding and independent concept" (2002, p. 7). This notion of citizenship being an independent concept is expanded upon by Humphreys, "…whereby an individual and the collective group become responsibly connected to the community and the society through leadership development activity" (2011, p. 221). One of the ways in which this leadership development activity can take place is through participation in political activities as well as being involved in initiatives that will uplift communities and in the process also bring about social justice and equity. Firstly, the role of citizens in exercising their political rights and responsibilities has to be looked at. Lawson states "that citizenship includes being involved in politics, above and beyond the normal activities such as obedience to the law and paying one's taxes" (Lawson, 2001, p. 164).

In the American context Perry and Katula state that, "Aside from simply understanding the rudiments of government, a citizen is expected to participate in public life" (2001, p.330). Typically most citizens in a democracy exercise their political voice through the process of

voting and it is therefore expected of citizens in a democracy to participate in the voting process. Verba et al., expand the notion of citizenship with reference to different forms of political participation when they claim that it involves more than voting and includes activities such as involvement in local communities, attending demonstrations and involvement in political organisations (1995, p. 9). It can be inferred from the statement that they view citizenship as including a wider variety of political behaviours and consider voting as "the most basic citizen act". Considering the range of activities that define citizenship, it will therefore include not only voting but a wide range of activities beyond voting according to Verba et al., (1995).

Within the South African context, Enslin draws attention to the fact that South Africa is a new democracy with a divided past when she states that the struggle against apartheid forged a highly participatory notion of democratic citizenship (2010, p. 75). She claims that:

> …one of the founding principles of the constitution is common citizenship and the equal enjoyment of citizen rights including security of the person, freedom of belief, religion and opinion, expression, assembly and association (2010, p. 76).

Enslin further emphasizes that:

> …. citizenship in a democracy is affected by the political health of the polity. It is also enacted in the day-to-day activities of a society, not least in the ways in which its constitution is lived—or not—by its members (2010, p. 76).

To this end, Enslin maintains that citizens are expected to hold an identity as a member of a democracy which entails not only rights but also duties (2010, p. 78). Audigier (2000) holds a similar view to Enslin and states that:

> …the core competences associated with democratic citizenship are those called for by the construction of a free and autonomous person, aware of his rights and duties ... (2000, p. 17).

These duties referred to can be linked to the acceptance and promotion of diversity, especially within the South African situation given its past involving racial and cultural segregation.

Starkey expands on the notion involving what brings together citizens by stating that:

> What unites them may simply be an acceptance of the legitimacy of the state within which they live. It may also be a strong affective bond based on shared history, ethnicity, religion or common purpose (2002, p. 7).

Starkey extends this to include both the political and cultural dimensions of citizenship by stating that:

> Citizenship stresses the notion of equal respect and dignity even wherethere is inequality of power. It also acknowledges the right of individuals to group together and engage in political and cultural activity to assert their rights (2002, p. 7).

It can be argued that in a multicultural society such as South Africa, citizenship education should therefore involve a high degree of diversity education (with respect to issues such as race, ethnicity and religion), and the development of mutual tolerance and acceptance of diversity. Correspondingly, an acknowledgement of the history of colonial and apartheid era oppression and exploitation along with the legacy of inequality requires that all citizens become aware of and committed to social justice. The concept of social justice and equity is explored in the following section.

Schoeman (2006) expands upon the notion of what it means to be a citizen by stating that a citizen in a constitutional democracy is someone who possesses the following characteristics:

> … understanding of and commitment to democratic values, respect for the common good, knowledge and understanding of political concepts, issues, structures and systems, higher-level thinking skills and a patriotic feeling, social skills, and an attitude of participation in democratic processes (2006, p. 133-135).

Schoeman's definition of what it means to be a citizen speaks to the political responsibility of citizens involving understanding political processes and being committed to democracy as well as other attributes required of citizens such as having appropriate social skills and higher-level skills, which also involves critical reasoning. The common good Schoeman (2006) refers to relates to activities aimed at achieving social justice and equity such as volunteering and voting. Schoeman provides a useful framework for the attributes required to be a citizen. This links up with the next section that explores the different kinds of citizens one encounters based upon the

attributes identified thus far. Schoeman speaks to the importance of understanding political processes and being committed to democracy, which also includes being able to understand democracy. The way that people living in a democratic state understand democracy differs among individuals and the following section looks at some of the ways democracy can be categorized. Dalton et al., state that people tend to view democracy, "… in terms of the freedoms, liberties and rights that it conveys" (2007, p.16). This implies that liberty and freedom are regarded as two of the most attractive features of democracy. This is also in agreement with the claims made by scholars such as Heywood (1992) who claim that it is possible to measure democracy through certain criteria such as equality in voting, participation in democratic processes and understanding of democracy. Dalton et al., also contend that viewing democracy as political rights and freedoms could also be an indication of people's aspirations to attain such political rights and freedoms (2007, p.17).

The kinds of citizens one encounters can be directly linked to the level of a citizen's participation both in politics and community involvement initiatives. Citizens' different levels and forms of political participation have been interpreted in terms of different conceptions or kinds of citizenship, whereby citizens can be classified on a continuum from those that are 'active citizens', i.e., citizens that are deeply committed to democracy and actively participate in politics to those that can be described as 'passive citizens' (Luescher-Mamashela et al., 2011, p.12). With reference to Ichilov (1990), Luescher-Mamashela et al., (2011) have distinguished in the earlier HERANA studies between three modes of activity: active, inactive and passive citizenship. While active citizenship involves active political participation, passive citizens are considered to be of a "consuming nature" (Ichilov, 1990, p. 16). Passive citizens may be those who are observers, content with following politics by reading newspapers or following the news. Conversely, Ichilov refers to inactivity as indifference towards politics (1990, p. 16). Lastly, Luescher-Mamashela et al., introduce the notion of 'transformative democrat' as the kind of citizens in democratising contexts whose participation goes as far as changing the conditions under which politics occur (2011, p.12). The above definitions of citizenship focus largely on political awareness and participation. The section that follows includes the role of citizens' ability to think critically as well as their civic engagement when differentiating between different kinds of citizens.

Another comprehensive framework for defining citizenship that includes domains of political awareness, critical thinking and civic engagement is provided by Westheimer and Kahne who distinguish three broad categories of citizens. They define the justice-oriented citizen as someone who:

> ...critically assesses social, political, and economic structures to see beyond surface causes, seeks out and addresses areas of injustice and knows about democratic social movements and how to effect systemic change (2004, p. 240).

This definition incorporates much of what was said in the previous discussion regarding critical thinking, understanding politics, social justice and equity. The personally responsible citizen is someone who, "….acts responsibly in his/her community, works and pays taxes, obeys laws, recycles, gives blood, volunteers to lend a hand in times of crisis" and the participatory citizen is an:

> ….active member of community, organizations and/or improvement efforts, organizes community efforts to care for those in need, promote economic development, or clean up environment, knows how government agencies work, knows strategies for accomplishing collective tasks (2004, p. 240).

The participatory citizen may be described as a "well-rounded" citizen in that this kind of citizen has a broad understanding of politics, knows how government agencies work and is also engaged in the community. However, the participatory citizen may not have the same level of knowledge regarding politics as the justice-oriented citizen has. The personally responsible citizen would be the one who may have a general understanding of politics and sometimes be involved in civic engagement. Furthermore, Westheimer and Kahne (2004) provide a comprehensive framework from which indicators can be drawn as to citizens' level of involvement in citizenship activities. This framework is also useful in the sense that one can draw from other theories and incorporate them into this framework. So, for example, someone who ranks high as being an active citizen, transformative democrat and/or critical citizen, but is not very much involved in community involvement activities would fit within the above framework as being a justice-oriented citizen. Similarly, someone who ranks high in the critical citizenship indicator but who is also engaged in

a lot of community involvement projects may be described as a participatory citizen. Someone who is indifferent to politics, but occasionally engages in civic programmes may be described as a personally responsible citizen.

When looking at the issue of classifying citizens it is important to remember that as far as competencies are concerned, there may be no absolutes. So, for example, the outcome of a study may indicate that most people are either personally responsible or participatory citizens. Such information, in itself, will have limited usefulness. What would be of greater value would be determining which competency areas are in need of attention. Depth in terms of understanding what the priorities, competencies and possible value system of each kind of citizen are, and not necessarily breadth, as indicated by the number of classification of citizens, is of greater importance. Moreover, there are certain activities students participate in which can be instrumental in citizenship education as is shown below. So, for example, one encounters certain students who are more politically conscious and involved while other students may be more focused on community work. This study looks at how these student activities contribute to citizenship education. However, it is useful to briefly establish what existing literature says about what competencies are preferred for citizenship because these competencies may be used to measure how activities students are involved in contribute to citizenship education.

The classification of citizens provided is useful as it ties in with the discussion by Enslin (2010) relating to the rights and duties of citizens. From the classification of citizens provided one can also establish what type of citizens one encounters in society. This is also useful from a citizenship education perspective as it may establish what activities students are involved in to foster different kinds of citizens. The next section continues with Enslin's discussion and speaks to the role of higher education in developing citizens in society. Enslin's summation of the rights and duties of citizens within the South African situation is quite comprehensive as she addresses the key attributes needed for citizenship against the backdrop of South Africa's political history. It is important to remember that Enslin refers to the schooling system, emphasising that in the schooling system education is viewed as both a prerequisite and as a site for citizenship education for the community (2010, p.79). This statement is in line with what Kam and Palmer

argue when they maintain, "…that education might still affect political participation—but in the earlier years—in primary and secondary schools" (2008, p. 628).

In the South African situation the role of developing citizens with the necessary attributes is not only a function of higher education, as it is articulated in the Education White Paper 3 of 1997. In this respect it is important to take into account that the Education White Paper 3 was formulated against the backdrop of South Africa's legacy of racism and the inequality that existed (and continues to exist) in the South African education system. In light of the fact that such inequalities still persist today - whereby certain schools are more resourced and privileged than others –some students who leave the school system are not able to enter higher education institutions. Although the responsibility of developing citizens for the new South African democracy should start at primary and secondary education level as suggested by Enslin (2010), higher education also has an important role in this regard. In the context of the high levels of disciplinary specialization in higher education, the key question is through what kinds of activities a research university is able to contribute to citizenship education among their undergraduate students? A way to consider this question is to look at the types of activities that help in developing democratic citizens; another way is to consider the kinds of skills that make up "enlightened, responsible and constructively critical citizens" (Education White Paper 3, 1997, 1.3). This leads to the next section which deals with the different dimensions of citizenship education.

2.4 Dimensions of citizenship education

When reviewing the literature on the role that universities can and do play in contributing to citizenship education, there are certain themes that are quite prevalent. These themes revolve around the question how curricular, co-curricular and community involvement contributes to citizenship education in wielding the link between citizenship education, social justice and equity (as shown above); and emphasising the importance of interacting with diversity, as well as comparing the relevance of diversity interaction to global citizenship education. The latter has been prompted by the growing globalisation and importance of globally aware citizens. It is

explored and especially relevant in the South African context in relation to South Africa's own diversity issues.

2.4.1 Citizenship education for social justice and equity

The achievement of social justice and equity is a complex process and it is therefore important to link citizenship education to social justice and equity since these are central to a more substantial notion of democracy. One can start looking at issues involving equity, social justice and democracy at an institutional level by looking at how students interact with one another and if all students have a sense of belonging to the institution. This specifically refers to how students appreciate and tolerate diversity. It also refers to how and if students interact with diverse others. The achievement of social justice and equity also depends on students at university having a sense of belonging and feeling equal to other students. The impact of a sense of belonging on social justice and citizenship is emphasized by Zinn and Rodgers who argue that:

> Voice, agency, and community all depend on a sense of belonging. Together, these elements comprise the task of citizenship, a citizenship that engages all of what it means to be human. Only when these ideas and consequent practices are kept central, can there be social justice (2012, p. 84).

This statement by Zinn and Rodgers speaks to the importance of diversity, as articulated by their reference to a 'sense of belonging' and its relation to citizenship and social justice.

Bozalek and Carolissen find that countries with democratic constitutions, such as South Africa and India, still experience injustices and inequalities (2012, p. 16). However, when dealing with issues involving citizenship and the achievement of social justice within the South African situation, it is important to first look at what the South African Constitution says since South Africa has a history of injustice and the purpose of the South African Constitution would be to "heal the divisions of the past and establish a society based on democratic values, social justice and fundamental human rights" (The Constitution, 1996, p. 1). This is an important point as the establishment of a society based on democratic values, social justice and fundamental human rights has the potential to result in an inclusive society that embraces diversity. The issue of embracing diversity is explored by Spreen and Vally (2012) in the following section that looks at how analyses of citizenship and education have gone through different phases in South Africa.

Spreen and Vally (2012) find that analysis of citizenship and education has gone through different phases during the two decades following the first democratic elections. Initially there was a focus on parts of the constitution that talk about citizenship and focused on classroom practice and how schools could make a contribution to citizenship education. This was followed by a period during 2006 and 2007 that focused on social justice and issues involving poverty. This was then followed by a period during 2008 and 2009 when there was an uprising of xenophobic attacks in South Africa and the importance of social justice in citizenship was emphasized. Notions of what citizenship means changed during this period and involved matters such as race and class. Nkoane also speaks to this by claiming that, "…the issue of democratic citizenship and social justice has (re)asserted itself over the past years in South Africa" (2012, p. 98). Spreen and Vally find that initial emphasis focused on sections in the Constitution dealing with citizenship rights and the role of schools in making a contribution to citizenship education that extended beyond the formal curriculum. This was followed by a period of xenophobia in the country's history, and notions of social justice and citizenship were then revisited which was done in view of racial tensions that started surfacing in various communities throughout South Africa (2012, p. 88-89). Spreen and Vally emphasize that the xenophobic attacks in South Africa provide an essential context for understanding why, "critical citizenship education plays an important role in democratic and social transformation at this particular point in South African history" (2012, p. 89). This ties in with what other scholars claim regarding the importance of acceptance and appreciation of diversity as being an important part of citizenship education (Gurin et.al., 2002; Hu and Kuh, 2003; Gurin et al., 2004; Pike and Kuh, 2006). The xenophobic attacks occurring in South Africa's recent history are an example of social injustice and are a consequence of attitudes concerning general intolerance toward diverse others. One can therefore conclude that the achievement of social justice and the acceptance of diversity are tied together.

The achievement of social equity and justice within South Africa is something that is also explored by Ramphele who states that, "all citizens will have to commit themselves to both making peace with the past and redressing its injustices" (2001, p. 16). This responsibility is expanded when Ramphele also states that "promoting greater equity in society is critical" (2001, p. 16). Addressing these injustices implies being active participants in the political arena and not

merely being passive citizens. While these definitions largely locate the role of citizenship within the political arena Ramphele's inclusion of promoting equity in society may include a process beyond merely becoming aware of and involved in politics. It may also include becoming active citizens who go out there and make a difference in their communities. This implies citizens who are engaged in community involvement initiatives. Humphreys refers to this as being a 'good citizen' whereby it is stated that to be, "a good citizen is to work for positive change on the behalf of others and the community" (2011, p. 221).

Brennan and Naidoo explore issues related to social justice when they examine the empirical and theoretical literature on the role of higher education in relation to the notions of social justice, social equity, citizenship, social cohesion and meritocracy where they find that the concepts equity and social justice are mentioned as two key higher education issues, stating that these concepts are also central to the notion of democratic citizenship (2008, p. 287). One of the important conclusions they draw is that "…higher education's contribution to the achievement of equity and social justice may well require both cultural change within the academic profession and new forms of relationship between institutions of higher education and the societies of which they form a part" (2008, p. 298). The latter part relating to new forms of relationships between institutions and the societies of which they form a part is especially relevant to this study as this speaks to community involvement that is discussed next.

Involvement in community work is regarded as an essential part of citizenship. Lawson states that some individuals' involvement in community work may have been driven by self-interest but that the benefits derived from that involvement are extended to society in general and the skills developed could also be used in various other situations (2001, p. 175). This self-interest Lawson refers to may be related to students' involvement in community work and the requirements of their academic work. Medical students, for example, may be involved in community work because it forms part of their academic course requirements and their motive may be to earn credits to complete a course, but at the same time these students may find themselves working in clinics and hospitals that may be understaffed whilst completing their training. This is an example of how students may directly contribute toward the improvement of the lives of people living within that community. Similarly, there are many other examples that

can be cited, such as students volunteering in impoverished communities and how social justice and equity can be achieved through the work the students are involved in. The role of this type of involvement is later explored in this literature review by Rhoads (1998), Annette (2002), Denson et al., (2005) and Keen and Hall (2007).

It can therefore be concluded that the achievement of social justice and equity is something that can be achieved through student participation in certain activities. This participation can take place on many levels. One way involves students interacting with diverse others and having all students experiencing a sense of belonging within the student body. Social justice and equity can also be achieved through the programmes students are involved in which may include service learning, community outreach programmes and building capacity for students to become involved in political and community life. Similarly there are other, less immediately visible benefits that may contribute to the achievement of social justice and equity. For example, students can become involved in community and political life through participation in student organizations and governance structures and this is another way of contributing to social justice and equity via citizenship education. The contributions of curriculum and student leadership as potential sites for citizenship education are explored later in this literature review by Pascarella and Terenzini (1991), Astin (1997), Levis-Fitzgerald et al., (2003), Volman and ten Dam (2004), and Luescher-Mamashela et al., (2011). In the following section a distinction is drawn between the curricular, co-curricular and community involvement activities students can become involved in that can contribute to citizenship education.

2.4.2 Differentiating between curricular, co-curricular and community involvement activities

Braskamp provides some structure to the nature of the activities students can become engaged in and broadly categorizes community involvement activities along the curricular, co-curricular and dimensions (2010, p. 3).

The complexity of engagement is expanded upon by Bender who states that:

> …engagement is a fundamentally educative practice; community engagement can be formal and purposeful as well as informal and unrecognised; the contexts and sites of community engagement shape

> (both formally and informally) the nature of the engagement that is possible and acceptable in those contexts and sites (2008, p. 93).

The formal dimension of engagement involves those activities that form part of the curriculum such as medical students completing fieldwork in community hospitals as part of their academic training. The informal dimension of engagement that Bender refers to as also being unrecognized may involve students volunteering in community outreach programmes as part of their extracurricular activities. Students can also become engaged in various other activities on university campuses that can take place on many levels ranging from involvement in the academic curriculum; on-campus co-curricular or extra-curricular activities such as sport, cultural activities, participation in student organizations and student governance structures; and in off-campus co- and extra-curricular activities such as service learning and volunteering. There is much debate around the definition of concepts such as 'service learning ', 'volunteering', 'community engagement' and 'civic engagement', and it this is explored in greater detail in the section dealing with community work in this literature review (Rhoads, 1998; Davidson and Arthur, 2003; Denson et al., 2005; Keen and Hall, 2007; Finley, 2011; Bateson and Taylor, 2011). It is also important to differentiate between curricular, co-curricular and community involvement activities since each of these activities has distinct roles involving citizenship education. The section that follows looks at how citizenship education can take place within the formal curriculum taught in class and the focus will be on how students' critical thinking capabilities can be developed through programmes that were introduced at certain higher education institutions.

2.4.3 Citizenship education within the curriculum

There are many ways in which citizenship education can be fostered within the curriculum and the section that follows looks at what the importance of developing students' ability to think critically. Pascarella and Terenzini (1991) broadly look at how critical thinking is defined while Norris (2009) speaks to the importance of critical thinking and the requirements that have to be met in order to be able to think critically. Anderson and Krathwohl (2001) use both the original and revised versions of Bloom's taxonomy to explain how thinking can be measured. Volman and ten Dam (2004) and Levis-Fitzgerald et al., (2003) show how critical thinking abilities were developed through programmes that were introduced at a few universities. Starkey (2002) looks

at how language education can be a potential site for learning about democratic citizenship education and Astin (1997) looks at possible changes that are needed in pedagogical teaching methods.

Firstly, when it comes to curricular matters, developing students' ability to think critically remains a cornerstone of citizenship education at all levels of education. This involves looking at teaching and learning methods on how critical thinking can be taught. To this end it is essential that focus be given to the curriculum's role in developing students' critical thinking skills. Several authors contend that critical thinking involves both skills and dispositions but generally thinking skills are given more attention. Pascarella and Terenzini state that critical thinking has been defined and measured in a number of ways:

> …but typically involves the individual's ability to do some or all of the following: identify central issues and assumptions in an argument, recognize important relationships, make correct inferences from data, deduce conclusions from information or data provided, interpret whether conclusions are warranted on the basis of the data given, and evaluate evidence or authority (1991, p. 118).

Norris states that critical thinking should not be seen as an option but rather as an educational ideal and that, "… students have the moral right to be taught how to think critically" (1985, p. 44). However, he goes further and claims that there are certain requirements that have to be met in order for individuals to be able to think critically. The first requires the disposition to be able to think critically. Individuals will also require the ability to be able to do a variety of tasks that include being able to find alternatives and to draw inferences (1985, p. 44). The following section looks at the contribution of Bloom's taxonomy in understanding critical thinking.

Anderson and Krathwohl (2001) look at how Bloom's taxonomy has been used when it comes to measuring thinking. It is a model whereby thinking has been split into six categories. It also gave rise to concepts such as active and critical thinking. There are not many differences between the original and revised versions of the taxonomy except that the revised version changed categories from nouns to verbs. Concepts such as application, analysis and evaluation have been retained while knowledge and comprehension have been replaced by remembering and understanding,

respectively. Synthesis has been removed and creating has become the highest level in the revised taxonomy. In the original version the taxonomy followed a hierarchy which started with knowledge as its lowest level, advancing to comprehension, application, analysis, synthesis and evaluation. In the revised version the concepts changed and start with remembering, advancing to understanding, applying, analysis, evaluation and the highest level being creating (Anderson and Krathwohl, 2001, p. 67-68). In the revised version some of the following changes have been made when it comes to defining the concepts. Remembering involves recalling information that has been memorized previously, understanding requires the interpretation and explanation of messages, applying involves processes such as implementation, analysis requires breaking down material and establishing the relationship between the parts and its larger structure, evaluation involves processes such as critiquing and judging information; and creating requires planning and production. Bloom's taxonomy is a useful tool in examining what activities students are participating in within the curriculum that may contribute to developing critical thinking skills. The following section looks at instructional methods that have been used to develop critical thinking skills.

Volman and ten Dam agree that the ability to think critically is important for democratic citizenship. Without this ability, students are viewed as not possessing a necessary characteristic of citizenship (2004, p. 360). The challenge therefore lies in developing not only curriculum but also pedagogies that would develop critical thinking. Volman and ten Dam propose an instructional format from a constructivist point of view with the aim of promoting active learning based on real-life situations, as well as developing a problem-based curriculum and encouraging stimulating interaction between students. This, they believe, will further enhance students' critical thinking abilities (2004, p. 360).

This study therefore looks at what activities students participate in that may contribute to developing critical thinking skills. As mentioned above this study is not aimed at measuring or testing students' critical thinking skills since testing such skills is a complex process involving more detailed testing that cannot be achieved merely through completion of a survey such as the one used in this study. Throughout the literature, the concept of "participation" is often mentioned and learning to think critically is conceptualized as the acquisition of the competence

to participate critically in the communities and social practices of which a person is a member. When it comes to the curriculum and the notion of critical thinking, it is important to look at the contribution that Astin makes when he states that students should not be seen as passive recipients of information but should rather become active participants in the educational process (1997, p. 203). A strong argument is brought forth by Astin who suggests that changes are needed in pedagogical teaching methods when he contests that, "….the more traditional pedagogical theories, such as the subject-matter (or content) theory tends to place the students in a passive role as recipients of information" (1997, p. 203).This ties in with the views held by Levis-Fitzgerald et al., (2003) and others who encourage activities such as dialogues and collaborative learning instead of traditional pedagogical teaching methods. Astin talks about what makes an effective learning environment and he maintains that a "highly involved student" is someone who "devotes considerable energy to studying; spends much time on campus; participates actively in student organizations; and interacts frequently with faculty members and other students" (1997, p. 199). It can be concluded that the academic curriculum should be suitable to foster the development of critical thinkers, which is a skill that is largely enhanced through collaborative learning activities and dialogue (Levis-Fitzgerald et al., 2003). This approach also moves away from the idea of seeing students as receivers of knowledge but consider them as active participants in the learning process. Furthermore, an advantage of Astin's student involvement theory over other pedagogical theories is that it directs attention away from subject matter and moves toward motivation and the evaluative/creative behaviour of the student.

A particular methodology is discussed by Levis-Fitzgerald et al., (2003) when they discuss the use of one–unit seminars as an instructional tool to foster critical thinking. They used one-unit seminars to discuss students' perceptions of the world and the position of their country in the eyes of the rest of the world following September 11. This involved dialogues and discussions with fellow students as well as university teaching staff. From these one-unit seminars the following themes emerged: global awareness, the importance of dialogue, understanding other cultures, students as knowledge makers, self-reflection and mattering (for example, faculty knowing students by name and making students feel that they 'matter') (Levis-Fitzgerald et al., 2003, p. 97). Although one-unit seminars were used by the institution involved following

September 11, the educational benefits of the exercise and its relevance to the development of global citizenship within the South African situation cannot be underestimated when one looks at the themes that emerged. What is important is that it provided an opportunity for students to critically think about issues that affect them. In a similar manner, other teaching methods can be used to foster citizenship education. The next section explores the importance of language education as a site for democratic citizenship.

In the same manner that one-unit seminars were used to develop critical thinking and help students develop this critical thinking skill, so too language education can be used as a site for fostering democratic citizenship. Starkey highlights the importance of language education:

> Language teaching is potentially a most important site of learning for democratic citizenship. Even where citizenship education is a formal curriculum requirement, which is increasingly the case, the relatively small amount of time allotted and the prestige of more traditional, examined disciplines tends to minimise its impact. Language teaching, on the other hand, requires and is given substantial curriculum time and benefits from the prestige of an established university discipline. Moreover, the content of language teaching has for long been flexible, including literature, cultural awareness, media studies and debates of topical issues (Starkey, 2002, p. 20).

The notion of language education as a site of learning for democratic citizenship discussed in the European context has the potential to do the same in the South African university and it would be interesting to find out how South African universities make provision for language education throughout the disciplines as a possible mechanism for citizenship education. It is also important that these critical thinking skills include a critical awareness of culture as Starkey states that, "There are a number of approaches to learning about cultures, one of them being critical cultural awareness, which is an ability to evaluate critically and on the basis of explicit criteria, perspectives, practices and products in one's own and other cultures and countries" (2002, p. 23). What can be concluded from the discussion on the use of one-unit seminars and the use of language education is that within the curriculum is that opportunities exist to develop both students' critical thinking skills and their acceptance of other cultures. These skills are important

because they also speak to acceptance of diversity and this approach may be instrumental in developing the manner in which students view their role in a global community. The issues of global awareness (Levis-Fitzgerald et al., 2003) and the role of culture within language education (Starkey, 2002) are closely tied with the concept of global citizenship that will be explored later in this literature review.

Astin (1997) continues his argument by stating that student involvement takes many forms which include absorption in academic work, participation in extracurricular activities and interaction with faculty and institutional personnel. What can be concluded from this is that critical thinking can be fostered both within the formal curriculum and in participation in community involvement activities. These activities, which extend beyond the parameters of the classroom and which are explored in the next section, can also make an important contribution to the development of citizenship education.

2.4.4 Citizenship education involving community work and support for democracy.

This section explores two issues related to citizenship education that generally takes place outside of the classroom. The first relates to community work and student involvement in activities such as volunteering. Here a distinction is drawn between volunteering and service learning, which may involve community work, but that also forms part of the student's curriculum. Next, student involvement in activities that support democracy is explored.

Rhoads (1998) highlights the importance of community service and the obligation people have to one another emphasizing that community service is something that may contribute to democratic citizenship and it is frequently highlighted as an essential element of democracy (Rhoads, 1998, p. 294). It is therefore argued that educating for citizenship will be facilitated if citizenship education involves some form of community work. It is important to remember that students may be involved in community work, but that such community work may be part of a student's curriculum which is often referred to as service learning.

Denson et al., define service learning as, "…the pedagogy of connecting academic learning with meaningful community service [it] represents one important mechanism in higher education that

challenges students to see connections between their learning and engagement in larger society" (2005, p. 2). Service learning has gained increasing popularity, especially in the United States and programmes are increasingly making use of co-curricular activities such as service learning. Keen and Hall connected co-curricular activities with service learning in their teaching and found that the potential contribution of co-curricular service-learning to develop engaged citizens has not been sufficiently explored (2007, p. 3). Conversely, Annette provides a British perspective on what service learning involves by stating that service learning is an experiential learning programme where students work with local communities and that it involves developing key skills related to their discipline, more civic awareness and active citizenship (2002, p. 1). Another form of community work involves volunteering and the difference between service learning and volunteering lies in the obligation that becomes tied to the student.

According to Jay "what makes service learning different from volunteering is its explicit academic component: like any test, paper, or research project, the service learning experience must be integral to the syllabus and advance the student's knowledge of the course content" (2008, p. 255). As opposed to volunteering, where the number of students involved may be considerably fewer, more students would benefit from this type of citizenship education if it is tied to the syllabus. Humphreys identifies the value of volunteering by claiming that, "…volunteering provides students with an opportunity to connect with others, learn about, and serve real needs within a community" (2011, p. 230). Denson et al., bring together the concepts of service learning and volunteerism by concluding that "…any attempts to improve the civic mission of higher education should also take into account ways to encourage student involvement in service learning and volunteerism in general, as both of these experiences enhance the students' commitment to addressing civic and social concerns even after they leave college" (2005, p. 24). Davidson and Arthur particularly emphasize the benefits of service learning and how this relates to citizenship when they state that, "…we believe that experiential learning in the community is more likely to inculcate and develop altruism, philanthropy, self-reliance and personal social virtues than is a classroom-based, 'delivered' course of citizenship education. The social dimension of the curriculum must be about acting and doing in real contexts – learning from service – not simply a cognitive activity – learning about service" (2003, p. 21). Furthermore, "they [students] will develop an increased sense of social

responsibility and concern for others. Political and civic knowledge and understandings will also be developed" (2003, p. 21). This statement made by Davidson and Arthur concerning citizenship and political knowledge leads to the following discussion concerning student participation in activities that may support democracy.

Encouraging student support for democracy can be achieved in various ways. One of them would be to encourage students to become involved in student governance structures. In the discussion that follows, a European example by Bateson and Taylor (2011) is to be explored first before it is followed by the findings of a few HERANA studies done in various African countries.

In a recent study, Bateson and Taylor (2011), have looked at the role out-of-class activities play in citizenship development in Eastern Europe where they believe that giving students the freedom to form various associations, clubs and the chance to organise activities of their own contributes toward building a climate that encourages student participation at university. This organising role speaks to the role that students play in university governance structures which is something this study is looking at closely. Furthermore, Bateson and Taylor (2011), contend that:

> to achieve an appropriate balance between students' independence in finding their own way (the freedom that universities in Central and Eastern Europe strive to ensure) and effective institutional programmes which facilitate a dialogue on student expectations and needs outside the classroom, universities, faculties and departments in this region must also become participants in student life. This means a new type of responsiveness and concern about the students' well-being which can only occur if the distance — still inherent in the higher education traditions of Central and Eastern Europe — between students and the faces of the university they meet each day can begin to transform itself. (2011, p. 481).

Planas et al., focus on analysing student participation in university governance, with the specific aim of identifying the main obstacles to student participation and offering proposals of how to better facilitate student involvement in the functioning of the university (2011, p. 1).

In the African situation, various HERANA studies have been done concerning student participation in activities that extend beyond the classroom. The first of three of the studies which were done was done by Mattes and Mughogho in 2009. They made use of Afrobarometer survey data that had been collected between 2005 and 2006 to gage if students who received a university education are more engaged and supportive of democracy than those who did not attend university. The second HERANA study was led by Luescher-Mamashela and looked at whether three African universities, of which UCT was one, served as a 'training ground' or a 'political hothouse' for democratic citizenship and leadership; and in the third HERANA study Mattes and Mozaffar (2011) examined the extent to which members of African parliaments are people who received a university education and if they have a different approach to their work than their colleagues who did not receive a university education (Mattes and Luescher-Mamashela, 2012, p. 145-146).

Luescher-Mamashela and his colleagues found that, while students at university are not necessarily more interested in politics, they discuss politics far more frequently and use a wider range of news media than other citizens who did not attend university. Students' ways of defining and their understanding of democracy do not differ much from the general public's definition and understanding of democracy (Mattes and Luescher-Mamashela, 2012, p. 153-154). Luescher-Mamashela and his colleagues developed the concept of the "active democratic citizen" as, "someone who always prefers democracy and either participates in protests or demonstrations on or off campus or acts in a formal capacity as an official leader/leader of an association on or off campus" and they concluded that active citizens represent just over one-fifth (22%) of the final year student body at UCT (Mattes and Luescher-Mamashela, 2012, p.160-161).

Mattes and Mughogho's (2010) study found that education encourages students to use media and to gain political news more often, thereby developing a deeper understanding of the larger political system. Mattes and Mughogho's findings where similar to those of Luescher-Mamashela and his colleagues in finding that university students are more involved in political discussion, make more use of news media, show high levels of political knowledge. They are also more involved in organizational membership and leadership; and are generally more critical

of how the democracy in their respective country is performing (Mattes and Luescher-Mamashela, 2012, p. 163-164).

These studies can be interpreted in either of two ways. One interpretation of the findings shows that universities may function as political 'hothouses' since students are exposed to a wide range of news media, frequently discuss politics and are presented with various opportunities to participate in campus organisations, but that the intensity of their involvement in these activities subside once they leave university. The other interpretation is that universities may act as 'training grounds' for democratic citizenship, enhancing leadership skills with the possibility of students becoming more critical of politics and also possibly becoming more involved in off-campus political activity. There are a number of advantages that students who attend university have over people who do not attend university as these studies have shown that students at university gain more knowledge, especially concerning politics, and are more critical regarding the performance of democracy in their respective countries than people who do not attend university (Mattes and Luescher-Mamashela, 2012, p.164).

It can be concluded from the discussion focusing on student participation in co-curricular activities such as service learning, volunteering and participation in politics and university governance structures that these are all activities that have the potential to contribute towards citizenship education. The importance of diversity education is explored next.

2.5 The importance of diversity interaction and the role that universities can play

The discussion that follows progresses through various stages, starting with an exploration of the concept 'diversity interaction', which is followed by a discussion of how interaction with diverse others involves getting to know the "otherness' of others as Davids and Waghid (2012) describe it. This leads to a discussion of how interaction with diversity is needed for citizenship; how students' moral and intellectual capabilities can be developed as a result of diversity interaction; and the role that higher education institutions can play by creating a space that allows for interaction among diverse students to occur. Throughout the discussion reference is made to the benefits of interacting with diversity and the kinds of diversity that are found.

2.5.1 The role of diversity interaction in citizenship education

Gurin et al., argue that exposing people to diversity helps in educating them to become citizens in a multicultural democracy (2004, p. 18). This statement is especially relevant to the South African situation, given the fact that South Africa is a multicultural democracy. Within a multicultural democracy one encounters people that differ from oneself in terms of race, language, ethnicity and religion. These groups of people are often referred to as "diverse others" and the concept of "otherness" is introduced by Davids and Waghid who claim that:

> It is our argument that there are different ways of understanding and knowing the otherness of the other. First, from a basis of compassion, it is possible to place oneself in the position of the other and imagine the experiences and perspectives of the other. This requires that the individual temporarily engages the world from the perspective of the other. And second, by deliberately placing oneself in the position of the other, the experiences of the other become the actual experiences of the individual (2012, p. 22).

This process of understanding others and experiencing their experience that Davids and Waghid discuss can only occur in a space that allows the individual to do so as it requires interacting with others on a level that would enable one to gain new perspectives and understand the experiences of people that are different. This type of interaction is crucial to developing an understanding and appreciation of diverse others. In the context of the xenophobic attacks experienced in South Africa, it also speaks to the development of an individual's moral and intellectual capabilities. The role that higher education institutions can play in creating a space to allow interaction that will develop the moral and intellectual capabilities needed for citizenship is raised by Lange who claims that these capabilities can be developed within the context of higher education (2012, p. 2). This statement made by Lange may refer to the fact that institutions of higher education have the potential to influence acceptance of diversity on many levels, both within the classroom and curriculum as well as in out-of-class activities. This claim ties in with that of Gurin et al., (2004) who state that institutions of higher education have to develop curricular as well as co-curricular opportunities for students to experience diversity. It also relates to the type of interaction that should occur on university campuses to make the experience meaningful to students and also advance the cause of citizenship education (Gurin et al., 2002; Hu and Kuh, 2003). Diversity

interaction of this kind may also result in a more supportive campus environment which, in turn, assists students' personal and intellectual development (Pike and Kuh, 2006, p.426).

Other scholars have found that exposure to diversity has various other benefits. Johnson, Soldner, Leonard, Alvarez, Inkelas, Rowan-Kenyon, et al., have found that, in addition to the benefits for citizenship education, it also has the benefit of increasing understanding of students' sense of belonging and connectedness on campus (2007, p. 527) while Gurin et al., find from the results of longitudinal analyses that, "the actual experiences students have with diversity consistently and meaningfully affect important learning and democracy outcomes of a college education" (2002, p. 358). Guarasci and Cornwell emphasize the importance of having students move out of their 'comfort zone' arguing that, community and democratic citizenship are strengthened when undergraduates understand and experience social connections with those outside of their often parochial 'autobiographies,' and when they experience the way their lives are necessarily shaped by others (1997, p. xiii).

Gurin et al., highlight the importance of diversity acceptance and interaction during college and the benefits associated with it when they argue that:

> …students who had the most experience with diversity during college would be more motivated and better able to participate in an increasingly heterogeneous democracy. To participate effectively, students need to understand and consider multiple perspectives that are likely to exist when people of different backgrounds interact, to appreciate the common values and integrative forces that incorporate differences in the pursuit of the broader common good, and to understand and accept cultural differences that arise in a racially/ethnically diverse society (2002, p. 348).

In light of this, it is clear that there are several benefits associated with students interacting with diverse others. The preceding discussion indicates that universities may serve as an excellent training ground for students to engage with diversity. The literature has revealed that many students enter university coming from a background where they may have lived in homogeneous communities for most of their pre-university years and that there are definite learning and democracy outcomes associated with diversity exposure within higher education (Gurin et al.,

2002). They also differentiate between the learning and democracy outcomes that could be achieved as a result of diversity exposure, maintaining that:

> Racial and ethnic diversity may promote a broad range of educational outcomes, but we focus on two general categories. Learning outcomes include active thinking skills, intellectual engagement and motivation, and a variety of academic skills. Democracy outcomes include perspective-taking, citizenship engagement, racial and cultural understanding, and judgment of the compatibility among different groups in a democracy. The impact of diversity on learning and democracy outcomes is believed to be especially important during the college years because students are at a critical developmental stage (Gurin et al, 2002, p.334).

Hurtdado also reminds us of the responsibility universities have of delivering graduates who are capable of being responsible citizens who are tolerant of diversity within a democracy (2003, p. 22). Although Hurtdado is referring to American higher education, much of what is being spoken about is relevant to the South African situation as well since the relatively young South African democracy should also have citizens who are tolerant and appreciative of diversity in our rainbow nation. However, merely having a diverse student body on a university campus is not enough to encourage actual interaction amongst diverse students and it has been found that diversity can be investigated on three levels (Gurin et al., 2002; Hu and Kuh, 2003). The next section looks at the types of diversity encountered and identifies what type of interaction is necessary for students to engage meaningfully with diverse others.

Pike and Kuh state that the notion of merely having a diverse student population that results in positive educational outcomes is not accepted by all (2006, p. 426). Pike and Kuh argue that, even though frequent interaction is encouraged within an institution's diverse student population, this does not imply that it will result in an affirming and positive campus environment (2006, p. 445).Gurin et al., provide some direction concerning the role that institutions can play in this respect, suggesting that institutions of higher education have to develop curricular as well as co-curricular opportunities for students to experience diversity. They refer specifically to racial integration and suggest that the creation of such opportunities may encourage meaningful interaction whereby they can learn from each other which could have positive educational outcomes (2004, p. 18).

However, it would be useful to determine how institutions can implement diversity programmes, but before this can be done it would be useful to investigate the different levels of student diversity. Hu and Kuh examine three levels that student diversity can be investigated at and find that:

> The first is structural diversity, which represents the demographic composition of the student body. The second is classroom diversity, or the degree to which human and cultural diversity is represented in the curriculum. The third is interactional diversity or the extent to which students from diverse backgrounds actually come into contact and interact in educationally purposeful ways (2003, p. 320-321).

A large section of the research and theory involving experiences with diversity focuses on structural diversity, classroom diversity and informal interactional diversity (Hu and Kuh, 2003; Pike and Kuh, 2006). Structural diversity involves the extent to which students of colour are represented in the student body while classroom diversity involves the inclusion of information about diverse groups in the formal curriculum. Informal interactional diversity, as the name suggests, looks at how students and teaching staff interact with one another, both within the classroom and outside of the class (Pike and Kuh, 2006, pp. 426-427). Pike and Kuh made several interesting findings concerning these three levels of diversity. Firstly, they found that there are a number of student characteristics that may influence the likelihood of interaction. These include factors such as experiences with diversity before entering higher education institutions, whether or not they are part of a minority group, parental education, academic preparation and their major field of study. They also found that institutional characteristics affect interaction and that structural diversity may be positively related to informal interactional diversity. It is also presumed to have an indirect effect on student learning and student development (Pike and Kuh, 2006, pp. 427-428). The relevance of global citizenship is looked at next and the focus is on issues revolving around the acceptance of diversity.

2.5.2 The relevance of global citizenship education

The literature featuring global citizenship focuses largely on diversity issues. South Africa is a highly diverse and multicultural nation which has a history stooped in racial discrimination and exploitation. South Africa is also striving to become globally competitive and open, and the

country is in a process of regional integration which bears its own challenges. A key issue that emerges from the discussion on global citizenship is its link to diversity education, a concept that South Africa should be grappling with as well, given its history.

The writing by Denson and Bowman is largely exemplary of other international studies since it shows the advantages of diversity exposure on students' preparation for a global society (2011, p.11). They emphasize that curricular or co-curricular diversity education refers to institutionally structured and purposeful programmatic efforts to help students engage with diversity with respect to both ideas and people. Students encounter this form of diversity through coursework, curricular and co-curricular activities (e.g., including service learning), and through participation in activities such as racial/cultural awareness workshops and student organizations (Denson and Bowman, 2011, p. 4). Learning to appreciate diversity may include language education, as mentioned above with reference to Starkey (2002). Starkey's exploration of language education as a potential site for citizenship education can be extended to embrace an appreciation of cultural diversity and in so doing also extends to the notion of global citizenship. Starkey concludes that, "Citizens in a democracy need intercultural skills for living in communities where cultural diversity is the norm" (2002, p. 29), and that they, "…. need critical cultural awareness to understand the world around them and challenge injustice, complacency, social exclusion and unwarranted discrimination" (2002, p. 29). Starkey's exploration of language's role in citizenship education is multifaceted in the sense that it encompasses critical thinking, diversity (also in terms of different cultures) and in this way also addresses aspects of global citizenship. This is especially relevant in the South African situation as the country is both a multicultural nation and one that has eleven official languages. Furthermore, South African students can benefit much from diversity education given the recent spate of violent xenophobic attacks on refugees and violent homophobic attacks, mainly aimed at lesbians (in the name of 'corrective rape'). Moreover, they can also benefit in the sense that students will, through participation in service learning programmes, learn more about the socio-economic inequality that exists within South African society.

2.6 The benefits of student engagement following university training

The question of student involvement in curricular, co-curricular and community activities as a dimension of citizenship education leads to the consideration of this in terms of graduate attributes. Graduate attributes are matters that have been explored by several scholars in South Africa as well as in other parts of the world and there are various opinions held concerning what attributes are most important for graduates. These differ not only amongst countries but also among institutions within countries. How graduate attributes are interpreted is important as it may guide how institutional debates and conversations on this topic can take place. Barrie suggests that graduate attributes involve more than merely skills and attitudes and that there are conceptions of graduate attributes that interact with learning outcomes at universities and that they will help in the process of knowledge creation and learning (Barrie, 2006, p.224). Nicol shows that at universities in Australia and the United Kingdom the graduate attributes identified are academic excellence, which involves being, "…critical and creative thinkers, with an aptitude for continued self-directed learning", being able to critically examine, synthesize and evaluate knowledge across a range of disciplines, being leaders in communities, advocates for improving and sustaining the environment (2010, p. 3). Nicol's identification of these attributes ties in with the citizenship competencies identified by Rhoads (1998), Denson et al., (2005), Jay (2008), Denson and Bowman (2011) and Finley (2011). From this it becomes evident that the required attributes Nicol has identified are in line with the competencies for citizenship as identified in related literature. This is illustrated in Table 2.1 which outlines the skills typically associated with democratic citizenship and the graduate attributes identified in the preceding discussion.

Table 2.1 Citizenship skills and graduate attributes

Skills associated with Democratic Citizenship	**Graduate attributes**
Critical thinking skills	Critical and creative thinkers, being able to critically examine, synthesize and evaluate knowledge across a range of disciplines
Knowledge and support of democracy	Being leaders in communities, cognitive awareness of politics
Commitment to social responsibility and community development	Advocates for improving and sustaining the environment and communities people live in.
Appreciation of diversity	Interaction with diverse others and developing an appreciation of diversity

In relation to the notion of graduate attributes it is clear that there are certain long-term effects of engagement that extend to the years following university education. For example, the benefits associated with increased political engagement after university training has been explored by looking at the function of universities as a political 'hothouse' or a 'training ground'. In the case where universities function as political 'hothouses' students may participate in campus organisations and the reason that students participate in campus organisations could be because they frequently discuss politics and have an increased exposure to a wide range of news media while at university which could motivate them to become more involved. On the one hand it may happen that involvement in these activities decreases once they leave university. On the other hand universities may act as 'training grounds' for democratic citizenship resulting in students becoming more critical of politics and continuing with leadership positions in political organisations after they leave university (Mattes and Luescher-Mamashela, 2012, p.164).

It can therefore be concluded that there are a number of advantages for students who attend university such as increased knowledge and being more critical in their thinking. Furthermore student participation in other forms of co-curricular and community involvement activities may influence their attitudes and behaviour; and determine what type of citizens they become in the years following university education.

2.7 Conclusion

Citizenship is a complex construct and this is highlighted throughout the literature review when various concepts related to citizenship education are explored. In the chapter preceding the literature review the need for citizenship education has been identified and various aspects related to citizenship education are explored in the literature review. The chapter initially defines citizenship, the importance of citizenship education and the role that higher education institutions can play in this respect before continuing to look at what activities students are involved in that could contribute to citizenship education. Definitions of citizenship range from simple definitions to ones encompassing a variety of skills. These skills include the ability to think critically, also supporting democracy, interacting and appreciating diversity and being involved in community work and volunteering. Flowing from these skills, the different kind of

citizens one encounters has been explored and it has been shown how citizens can be categorized from being fairly inactive citizens to ones that are highly active and participatory. Inactive citizens have been regarded as those who show minimal involvement while highly active and participatory citizens would be those who, for example, not only limit their political involvement to merely voting but would also become active in various organisations, do community work and make an effort to interact with diverse others and appreciate diversity. This has been echoed in the section that followed which looked at the importance of relating citizenship to notions of social justice and equity. This section looked at how citizens can achieve social justice and equity in various ways and found that one of the ways that social justice and equity can be achieved is, for example, by becoming involved in community work whereby students could help improve the lives of impoverished communities. Citizenship education has been discussed and it has been shown how citizenship education can take place along the dimensions of curricular, co-curricular and community involvement. Within the curriculum a focus has been placed on what critical thinking involves as well as how critical thinking and the use of specific instructional tools can give students a sense of belonging that can facilitate dialogue and open discussion, thereby enhancing their critical thinking skills. The role of language teaching as a potential site of learning for democratic citizenship has been introduced and the importance of accepting and interacting with diverse others has been explored, including the relevance of global awareness as it is also linked to issues related to the importance of diversity education. A connection has been made between curricular and out-of-class student activities to the notion of graduate attributes. The literature review was concluded by exploring the long-term effects of engagement following university education.

One of the key points that came out of the literature review is that citizenship education can take place along the dimensions of curricular, co-curricular and community involvement activities and students are involved in a range of activities at university that may contribute to citizenship education. The literature review employed a conceptual framework that leads to a theoretical framework that is explored in greater detail in the following chapter.

CHAPTER THREE

Student attitudes toward citizenship: Theoretical-Analytical Framework

3.1 Introduction

The theoretical framework that was developed for studying student activities and attitudes toward citizenship at the UCT is discussed in this chapter. The chapter starts with a review of the research questions of this study and is followed by an examination of the concept 'citizenship' and looks at how the concept is used in the context of this study, specifically concentrating on the different concepts of what citizenship entails, the importance of citizenship education; and also connecting citizenship to the notions of social justice, critical thinking, community involvement, interaction with diversity and global citizenship.

The second section looks at the student experience and the role of the student experience within the context of this study. In the third section the SERU framework is outlined and here the background information concerning the SERU survey is provided with reference made throughout this section to the literature underpinning the survey. In the fourth section an analytical framework is provided that looks at the activities students are involved in and the attributes required for citizenship. This section examines how the survey is adapted and operationalized to study student participation in activities and student attitudes toward democracy (Chickering & Gamson, 1987; Kuh, Whitt & Associates, 1991; Pascarella & Terenzini, 1991; Astin, 1993; Tinto, 1997). The following section provides a brief review of the research questions in this study.

3.2 Research questions

As mentioned at the start in the introduction to this dissertation, this study seeks to answer the following research question: *What activities are students involved in that contribute to citizenship education?*

The main aim of the study is to determine what activities students are involved in that contribute to citizenship education. This aim will therefore be achieved through the following objectives,

such as establishing activities students are involved in that contribute to citizenship education (and the development of key skills such as critical thinking skills). Determining the extent of student participation in community work including activities that may contribute to critical thinking, support for democracy, as well as students' appreciation of diversity and their interaction with diverse others as measured, for example, by the amount of time that students spend on certain curricular and co-curricular activities and community activities, e.g., volunteering is an equally important objective. A further objective to be aimed at is determining student attitudes with respect to support for democracy, also the importance of community work, and students' appreciation of diversity. Finally the study will attempt to determine the extent to which students have certain kinds of attributes of democratic citizenship, as measured in terms of certain attitudes and skills noted in relevant literature and try to relate the activities students are involved in to their attributes of democratic citizenship. The section that follows provides a review of what the concept citizenship entails.

3.3 Citizenship

As discussed in the literature review, the ways in which the concept 'citizenship' has been defined vary. It may be a general definition of citizenship simply as someone belonging to a community to definitions of citizenship comprising a variety of skills. These skills include participation in political activities; and being involved in initiatives aimed at achieving social justice and equity such as involvement in community involvement programmes (Lawson, 2001; Perry and Katula, 2001; Starkey, 2002; Enslin, 2010). Citizenship also includes proficiency in certain skills such as critical thinking skills and diversity skills (Schoeman, 2006; Davids and Waghid, 2012).

Similarly, concepts related to citizenship such as support for democracy also vary according to certain criteria and can range from a minimum level that encompasses certain freedoms that make free and fair elections possible to the maximum level that involve different forms of participation such as becoming involved in political groups (Heywood, 1992; Dalton, et al., 2007). Furthermore, citizens have been classified on a continuum from 'active citizens', meaning citizens that are deeply committed to democracy and actively participate in politics to more 'passive citizens' that are not as active (Ichilov, 1990; Luescher-Mamashela et al., 2011).

It has thus far been established that citizenship is a concept comprising a number of attitudes and skills and that these include the ability to think critically, a supportive attitude towards democracy and the ability to appreciate diversity, amongst others. These attitudes, skills and competencies make up the 'citizenship attributes' and may also be referred to as indicators of citizenship (considering different types of citizenship as discussed in the preceding chapter dealing with the literature review (Astin, 1997; Ramphele, 2001; Gurin et al., 2002; Hu and Kuh, 2003; Gurin et. al., 2004; Pike and Kuh, 2006; Brennan and Naidoo, 2008; Kam and Palmer, 2008; Enslin, 2010; Humphreys, 2011). At the same time students are engaged in a wide variety of activities that may contribute to democratic citizenship and these activities are spread across the curriculum, co-curriculum and community work. These include a range of academic activities, political participation, participation in civil society organisations as well as volunteering and involvement in the community (Gurin et al., 2002; Schoeman, 2006; Bender, 2008; Braskamp, 2010**).** Hu and Kuh (2003) contend that student learning in and out of class is a seamless process, emphasizing that events and activities students are involved in blend and that students do not divide what they learn into categories of experiences from the classroom, residence and other activities. Hu and Kuh maintain that students learn as much from their peers and others outside of class as they do from tutors in class (2003, pp. 330-332). The point raised by Hu and Kuh about students learning from their peers also relates to how students interact with diverse others. Having students interact with diverse others is beneficial for democracy in the sense that it prepares students to function in an increasingly diverse and heterogeneous society (Chickering, 1987; Hu and Kuh, 2003; Gurin et al., 2002).

3.4 The student experience and student attitudes toward citizenship

The aim of the study is to identify what activities students are involved in that may contribute to citizenship education and in order to achieve this aim a survey was used that focuses on the student experience. The Student Experience at the Research University (SERU) survey was used and the survey specifically seeks to establish what it is that students learn from their involvement in academic, classroom-based experiences and out-of-class activities. The following section looks at the theory that informs this survey. It shows how the theoretical foundation of the survey

has much in common with citizenship attributes and student activities that have been identified earlier.

3.5 The SERU approach of looking at the student experience

SERU is a survey that deals with the question of the student experience in a similar way to the other student engagement surveys, such as the National Survey on Student Engagement (NSSE), which has been adapted to the South African context as the South African Survey on Student Engagement (SASSE). SERU is different from NSSE and SASSE in that these surveys do not allow the option of modifying the survey instrument to suit particular regional and institutional needs. SERU, in contrast, has a common core of questions (i.e., a common 'module') used in all universities where the survey is conducted as well as modules or groups of questions that are either common to a particular regional or national group of universities only, or are institution-specific (CSHE, University of California Berkeley, 2006).

In the SERU approach, there are two important elements to the study of the student experience. The first element involves what the student does in terms of the amount of time and effort students spend on various activities, while the second element involves what the institution does and involves institutional practices and policies at colleges and universities which have an influence on the level of student engagement (Chickering, 1987; Pascarella and Terenzini, 1991; Astin, 1997; Tinto, 1997; Hu and Kuh, 2003; Kuh, Kinzle, Schuh, Whitt & Associates, 2005). In the SERU questionnaire there are questions related to the amount of time students spend engaged in academic activities such as attending lectures as well as questions requiring students to state what opportunities the institution provides to enhance the student experience. These elements are discussed in the following section.

3.5.1 The amount of time students are involved in activities

The first element of importance in the SERU survey deals with the amount of time students are involved in activities. Astin finds that a highly involved student is someone who, "devotes considerable energy to studying; spends much time on campus; participates actively in student

organizations; and interacts frequently with faculty members and other students" (1997, p. 199). In the SERU questionnaire the question requiring students to indicate how much time they spend engaged in academic and out-of-class activities provides time frames ranging from 0 to 5 hours up to more than 30 hours per week engaged in these activities. It has also been found that there are several benefits associated with student involvement. Pascarella and Terenzini (1991) indicate that involvement is important as it influences learning. These scholars hold the view that the student who is more involved in student activities also benefits from an improved learning experience. Tinto ties involvement to student attrition and claims that with more student involvement in college life there is a higher likelihood of persistence in college (1997, p. 600). Student involvement is seen as having a generally positive influence on the total student experience and should therefore be encouraged. The claims made by these scholars are very relevant to this study as the amount of time spent on activities is seen as a measure of the student's involvement in these activities and the more time a student spends on these activities, the more involved the student is in life at college or university and the greater the chance of the student achieving success in his/her studies; and also benefitting from the overall student experience at university.

3.5.2 The influence of institutional practices and policies

The other element providing importance to the study of student experience involves institutional practices and policies at colleges and universities, which has an influence on the level of student involvement. Kuh, Kinzie, Schuh, Whitt and Associates declare that, "…institutions that recognize and respond to the total student experience encourage involvement" (2005, p. 347). Furthermore Kuh et al., also speak to the importance of institutional climate and a connection between acceptance and tolerance toward diversity at institutions and institutional climate has been made. It has been found that a climate that promotes inclusivity and acceptance of diversity will give students a sense of belonging that may increase the extent of their involvement at university (Gurin et al., 2002; Hu and Kuh, 2003; Gurin et al., 2004; Pike and Kuh, 2006). In this respect the kind of diversity that is encountered at institutional level is also important. Hu and Kuh (2003) have distinguished between structural, classroom and interactional diversity shown in the literature review. Hu and Kuh maintain that, although structural diversity is important, merely having a diverse student body on campus is not sufficient to encourage interaction (Hu

and Kuh, 2003; Pike and Kuh, 2006). The literature review has found that interacting with diverse others may be an essential requirement for citizenship education as it equips students who may come from homogeneous societies to interact and gain perspectives from diverse others that would enable them to function in an increasingly diverse and heterogeneous society (Gurin et al., 2002; Hu and Kuh, 2003; Gurin et al., 2004; Pike and Kuh, 2006; Waghid, 2012). This kind of interaction may also improve tolerance amongst students and could also prevent incidents such as xenophobic attacks and other hate crimes. This is important because people who live in a multicultural society such as South Africa have to develop an appreciation of diversity. Furthermore, Kuh et al. connect the importance of creating multicultural communities to the institution's mission by claiming that an institution's mission can serve as, "… the rationale for what a college or university is and aspires to be and the yardstick against which students, faculty, and others can determine if activities and institutional policies are educationally purposeful" (2005, p. 277). Kuh et al. state that in order to achieve the objective of becoming multicultural learning communities universities may have to refocus their mission and philosophies in order to promote appreciation and understanding of diversity amongst the student population and thereby achieve its aim of affirming all members its community (2005, p. 300). Part of the process of determining if an institution's mission and philosophies are achieving their objectives, may involve observing student perceptions and opinions related to institutional climate; and the survey has questions aimed at finding out students' perceptions concerning the campus climate at UCT. It is therefore important that institutional policies and practices are aimed at encouraging student involvement and that these policies and practices also contribute in creating an affirming environment that encourages diversity interaction.

3.6 Citizenship attributes and the relation to student activities: An Analytical Framework

The following section looks at the analytical framework used in this study. The adaptation and operationalization of the survey is first discussed.

3.6.1 Adaptation and operationalization of the survey

The research questions in this study are focused on identifying the student activities that may help in fostering positive attitudes toward citizenship. The element of importance in this study involves the amount of time students spend participating in the activities that have been

identified since it was found that the more time students spend on these activities, the higher the likelihood that they will gain more from their experiences at college and university (Astin, 1997, p.199).

The original SERU survey in Appendix E contains questions that will help in addressing the research questions in this study. These variables include critical thinking skills, support for democracy, appreciation of diversity and involvement in community work. The SERU survey has various questions that are useful to this study which look at aspects such as the academic work within the classroom as well as out- of- class activities in which students are involved. These include interaction with peer groups, how students engage with diverse others; and student involvement in community work and political activities. However, the original survey did not deal sufficiently with democracy. One of the benefits of using this survey is that this survey allows for adaptation and in the case of UCT this involves the development of a citizenship module to be included in the survey questionnaire. The proposal of the Citizenship Module is outlined in detail in a conceptual map in Appendix F. Questions from the HERANA I student survey, which are based on the Afrobarometer, and questions from the original SERU survey, as well a few new questions are included in the Citizenship module.

The design of the module is based on the theory that students come to university bringing their respective personal backgrounds with them; they participate in various student activities within a certain campus climate; and develop certain skills and competencies that may be attributes of democratic citizenship. Although there are also questions related to the university's institutional climate, the research questions in this study do not focus as much on institutional policies and practices. The variables involved in the study have been arranged into conceptual families such support for democracy that are tied to items in the questionnaire and the following section explores the analytical framework involving the variables that are used in the analysis process and explores the first variable, namely critical thinking.

3.6.2 Critical thinking

The literature review has identified in section 2.4.3 dealing with citizenship education within the curriculum that there are certain activities such as having students participate in dialogues,

interacting with lecturers and using certain instructional methods that may contribute to their critical thinking skills (Astin, 1997; Levis-Fitzgerald et al., 2003; Volman and ten Dam, 2004). The survey makes allowance for determining which activities students are exposed to that may contribute to critical thinking.

The SERU survey addresses the issue of student involvement as well as the issue concerning the amount of time students spend on these activities in the first part of the questionnaire dealing with academic engagement. In this part of the questionnaire questions are posed concerning the amount of time students spend on various activities related to the curriculum and co-curriculum as well as community work and volunteering. This can be found in question 1.1 in the first section of the questionnaire in Appendix E. The section in the questionnaire dealing with academic engagement also covers other aspects of the student's involvement by asking questions related to the student's participation in classroom discussions, whether students interact with academic staff and how proficient students regard themselves in having developed certain critical skills at university These skills include the ability to break down material and to judge information in order to draw conclusions (Astin, 1997; Anderson et al, 2003; Volman and ten Dam, 2004).

As mentioned previously, it is not possible to use this survey to measure critical thinking in itself but tied to the critical thinking variable there are questions that ask the student how proficient he/she has become in certain skills that require critical thinking such as analytical skills, reading, comprehension and writing skills. These questions can be found in question 1.7 in the questionnaire in Appendix E. and make up the dependent variable which specifically looks at self-reported scores students provide for their critical thinking proficiency skills. The results of these scores may be useful in determining if the programmes students are involved in are effective in developing critical thinking skills. The dependent and independent variables involving critical thinking are identified in Table 3.1 at the end of section 3.6. The following section deals with student support for democracy.

3.6.3 Student support for democracy

The study looks at two ways in which student support for democracy is measured and builds on the HERANA work by Luescher-Mamashela et al. (2011) whereby some of the questions used in Afrobarometer studies are adapted. One of the ways student support for democracy is measured is by looking at students' cognitive awareness of citizenship and democracy through a process of gaining student opinions and establishing their attitudes towards politics and democracy. Another way is determining what activities students are involved in such as participation in student governance structures (Bateson and Taylor, 2004; Planas et al., 2011). The student support for democracy variable uses a combination of these methods and has questions connected to it that measure how involved students are in political organisations, students' understanding of democracy and politics, how often students discuss politics, as well as questions that determine how important students consider certain citizenship attributes related to politics and democracy (Heywood, 1992; Dalton, et al., 2007).The questions relevant to determining student support for democracy are identified in part 6 of the questionnaire dealing with political and social engagement in Appendix E. The dependent variable involves student attitudes towards democracy while the independent variables involve student participation in activities that support democracy and are found in Table 3.1 at the end of section 3.6. The following section explores students' appreciation of diversity.

3.6.4 An appreciation of diversity

The variable that involves diversity interaction and appreciation looks at how students engage with other students who may have a different background to theirs in terms of aspects such as race, religion, sexual orientation, nationality, age and language. Appreciation of diversity features prominently in scholarly literature and is also mentioned extensively in discussions involving institutional climate (Gurin et al., 2002; Starkey, 2002; Hu and Kuh, 2003; Gurin et al., 2004; Pike and Kuh, 2006; Denson and Bowman, 2011). Diversity skills are essential for functioning in an increasingly diverse and multicultural society and it is important to remember that actual interaction is more important than merely having a diverse student body. The concept 'appreciation of diversity' is used in this study to show that, even in situations where students may come from communities where they have not interacted with diverse others, they may still have an appreciation of diversity.

This variable is measured by determining how often students interact with diverse others and a set of questions are tied to it that measure how students rate themselves in appreciating, tolerating and understanding diversity as well as their proficiency in local and foreign language skills. The questions relevant to students' self-reported proficiency in appreciating diversity are identified in question 1.7 in the questionnaire in Appendix E. Similar to the technique used for critical thinking, diversity skills are evaluated by using students' self-reported proficiency scores. The conclusion can therefore be made that diversity skills are important both in developing an appreciation of diversity and creating an affirming campus climate that provides students with a sense of belonging and thereby also contributing to creating a multicultural learning community. The dependent and independent variables involving student appreciation of diversity are identified in Table 3.1 at the end of section 3.6.

3.6.5. Commitment to social responsibility and community development

The following section looks at the importance of students participating in community initiatives and volunteering. Volunteering and involvement in community work are also associated with the objective of achieving social justice, as was mentioned earlier in this chapter and in the literature review (Denson et al. 2005; Jay, 2008; Jacoby, 2009; Finley, 2011; Humphreys, 2011). Community work may form part of the student's academic work, which is often referred to as service learning or fieldwork, as well as community work that the student participates in off campus such as volunteering (Rhoads, 1998; Annette, 2002; Davidson and Arthur, 2003; Keen and Hall, 2007; Bender, 2008; Finley, 2011).

As mentioned previously, Rhoads (1998) considers community work and the obligation people have to one another as an essential requirement for citizenship. In the South African context, community work often involves work that leads to the improvement of life for people living in impoverished communities. These communities often lack adequate basic facilities such as housing and health care facilities. Community work can cover a broad spectrum of activities and may include social responsibility programmes that are focused on the environment, as well as community work in various communities such as volunteering at hospitals, homeless shelters and homes for the aged. In the context of this study which involves students and universities, the type

of community work that is being performed can occur either because it is part of the student's coursework or it can be voluntary work that the student is involved in. The following section looks at commitment to social responsibility and community development.

There are a variety of skills that may result from volunteering and community work and generally it is found that people who are involved in such work also have a strong social conscience, they place high importance on social responsibility, they tend to be compassionate and they also have an ethical commitment to the community work they are involved in (Rhoads, 1998; Schoeman, 2006). It could be argued that not all people who are involved in community work possess all these attributes, but it should also be acknowledged that whatever their motives are for becoming involved in community work, their work still has the potential of benefiting society at large (Lawson, 2001, p.175). Therefore, when conceptualizing the dependent variable for community work, the concept has to include as many of these attributes as possible. The dependent variable, therefore, had to include a few essential components. One of the components involves 'community' because the activities that students are involved in directly affect the communities in which the students are working. Another component of the concept involves 'development' since communities benefit from this work as it involves the development of communities in one way or another. This kind of development results in improvement of the living conditions of people living in these communities. Other components include commitment and social responsibility since students have to show an attitude of committing themselves to achieving community development and being socially responsible. The dependent variable that involves community work will therefore be referred to as 'commitment to social responsibility and community development'. This concept was chosen as it encompasses what people who are committed to doing community work do and it also acknowledges the contribution students make in helping to develop the communities that they work in. The questions relevant to the dependent variable involving commitment to social responsibility and community development are identified in question 6.1 in the questionnaire in Appendix E. The dependent and independent variables involving commitment to social responsibility and community development are identified in Table 3.1

Table 3.1 The dependent and independent variables in the study

Theoretical Framework *Research Question: What activities are students involved in that contribute to citizenship education?*			
		Independent Variables	**Dependent Variables**
1	**Critical Thinking** Determining student assessment of their own critical thinking skills and their participation in activities that contribute to critical thinking,	***Questions 1.1, 1.2, 1.3 and 1.5*** Participation in activities that may contribute to the development of critical thinking	***Question 1.7*** Proficiency in Critical Thinking
2	**Democracy** Determine students' understanding of democracy, their commitment to and of support democracy.	***Question 6.6*** -voting ***Question 6.7*** - Student participation in active politics ***Question 7.3*** -associational Membership	***Question 6.1*** Importance of citizenship attributes such as understanding the constitution, Bill of Rights and values enshrined therein ***Question 6.2a*** Understanding democracy Students' ability to define Democracy ***Question 6.2b*** Student support for democracy -Do students support representation ***Question 6.3*** -Do students reject authoritarianism -
	Determine students' cognitive engagement with democracy	**Question 6.5b** Frequency of political discussion	***Question 6.1*** Understanding the Constitution, the Bill of Rights and the values enshrined therein.
3.	**Engagement with diversity** Establishing students' appreciation of diversity if students engage with diverse others,	***Question 3.7*** Interacting with diverse others ***Question 7.3*** Involvement in organisations that encourage diversity interaction ***Question 1.7*** Proficiency in language skills	***Question 1.7*** Proficiency in understanding diversity
4.	**Community involvement** Determining student attitudes towards volunteering and community work as well as the extent of student participation in volunteering and community activities	***Question 1.1*** Amount of time spent volunteering in outreach activities outside of academic work. ***Question 7.3*** Involvement Development agencies and volunteering in community outreach activities outside of academic work	***Question 6.1*** Importance of citizenship attribute

3.7 Summary and conclusions

This chapter presented a theoretical framework for this study. The study seeks to understand what activities students are involved in that may contribute to the attainment of the desired attributes for democratic citizenship. The variables involved in the study have been arranged into conceptual families such as support for democracy that are tied to items in the questionnaire, which are summarized in Appendix F. The Afrobarometer survey uses a conceptual framework of empirical dimensions and this study adapted and made use of this framework. The following chapter discusses the research design and methodology of this study.

CHAPTER FOUR

Research Design and Methodology

4.1 Introduction

The purpose of this chapter is to provide justification for the research methodology used in this study, to describe the instrument used, the data collection procedure; the sample selection and the statistical procedures used to analyze the data. A general background involving the study is first provided, followed by a discussion that centers on the research design of the study. The rationale for the research approach, the questionnaire used in the study and where the study is undertaken are then discussed. The sampling and sampling procedures, ideal and realized sample, data collection procedures and the ethical considerations involved are then discussed, as well as the reliability and validity of the data. The chapter is concluded with a brief outline of the data analysis procedures and the limitations of the study.

As mentioned previously, the study seeks to answer the following question:

What activities are students involved in that contribute to citizenship education?

In answering this research question the study looks at the activities students were involved in, on the one hand, and student attitudes towards citizenship on the other hand. The preceding literature review emphasizes why it is necessary to look at the activities and attitudes that are regarded as necessary for democratic citizenship. These are identified as being student attitudes to democracy, engagement with diversity, community involvement and critical thinking,

The study seeks to measure the extent of student participation in activities that contribute to citizenship education and their attitudes concerning the importance of critical thinking skills, support for democracy, engagement with and appreciation of diversity; and community work and volunteering.

4.2 Research Design

A research design provides the outline involving the collection, measurement and analysis of data and serves as a guide concerning how, when, where and by what means the researcher will conduct the research. It is defined as "an arrangement of conditions for collection and analysis of data in a manner that aims to combine research relevance with economy in procedure" (Kothari, 2004, p. 31). There are several research designs that can be used to generate and obtain the data to address the research questions in this study. One type of research design that can be used involves qualitative research whereby the interviews and observation are two methods of qualitative data collection (Babbie and Mouton, 2001, p.310). Another method may involve a mixed-method design which combines qualitative and quantitative methods (Sale, Lohfeld and Brazil, 2002, p. 44).

A limitation of using a qualitative design involving interviews in a study such as this is that the sample of students that would be interviewed would be much smaller than the number of students who may be reached when using a survey as the samples for interviews are, "… not meant to represent large populations" (Sale et al., 2002, p. 45). Furthermore, making use of interviews would involve identifying specific students who could participate in the interviews. One of the problems when using such an approach involves the identification of students to interview as not all students participate in the same kinds of activities. The sample that would be chosen would have to be representative of the general student population as the findings would have to be generalizable. The generalizability of results is not usually an objective of qualitative research and therefore in this situation a purely qualitative approach using interviews would not be the best option (Sale et al., 2002, p. 45). A survey was chosen as the research questions would be best answered by reaching as many participants as possible in order to make the findings of the study generalizable. In light of the fact that interviews pose certain limitations, making use of a survey to address the research questions seems like a more suitable alternative. The advantage of using a survey is that it would allow for the largest possible number of students to be reached who could participate in the study. Using a survey which has a census design would therefore seem like the most appropriate choice as the findings would also be generalizable.

When deciding on a research design it is always useful to look at other approaches that have been used in previous studies and since this study is similar to those undertaken in countries such as the United States that looked at how citizenship education took place in curricular, co-curricular and community involvement activities that students engaged in, making use of survey makes sense here (Pascarella and Terenzini, 2005). Several of the studies that have been undertaken were quantitative studies but this study is also different from the other studies in that it takes an in-depth look at a varied range of student activities and attributes of democratic citizenship, with the specific aim of establishing what the activities are that students are involved. This is a descriptive, cross-sectional study in the sense that it is a survey with a census design that is based on observations representing a single point in time (Babbie and Mouton, 2001, p. 92).

4.2.1 Rationale for the research approach taken

This section explores the rationale for the research approach taken and starts with a background as to how this study came about. This is followed by a discussion focusing on two things. Firstly, it looks at the rationale for the study and looking at the activities students are engaged in and its relationship to citizenship education. Secondly it provides justification for participation in the SERU/ UCT survey.

There have been some advances made but South Africa is still a relatively young democracy that is characterized by inequality and division on many levels such as income inequality, racial division and xenophobia (Nyamnjoh, 2010, p.66). In South Africa citizens are therefore needed who possess the skills and attitudes to participate meaningfully in, and contribute to advancing democracy. The literature review has identified in section 2.3 that democratic citizenship involves the acquisition of a variety of skills such as the ability to think critically, as well as attitudes such as supporting democracy, volunteering in community work, appreciating diversity and interacting with diverse others. Citizenship education is therefore a priority and this study aims to find out in what activities students are involved that may help them acquiring these skills.

As mentioned previously in section 1.1, the amount of empirical research around which student activities contribute to citizenship education is fairly limited and requires more exploration in

South Africa where the field of student development is comparatively new. Research has been done on how student participation in student governance and leadership has influenced their awareness and involvement in politics (Luescher-Mamashela et al., 2011). The possession and processing of political knowledge and information contained in mass media, as well as the ability to engage in critical observation and conversation is essential to the notion of citizenship, but there has been limited research done concerning the other activities that may contribute to citizenship education. This study looks at a number of aspects related to citizenship education, specifically concentrating on the activities students are involved in and the extent of their participation in these activities. It also looks at student attitudes towards citizenship and attempts to relate students' attitudes to their participation in activities.

An opportunity presented itself for me to become part of a larger project involving the HERANA, CHET and the Student Experience at the Research University (SERU) survey at UCT in 2012. Participation in this survey allowed for the development of a citizenship module to be included in the survey and in this way the study aims to address various issues around citizenship education that can be useful for student development in South Africa as it can be used to enhance programmes involving citizenship education.

Furthermore, the instrument chosen for the study is an established survey which is located within the larger SERU-AFRICA project involving the HERANA, CHET, the Student Experience at the Research University (SERU), and UCT. SERU selects research universities in order to generate data on students' undergraduate experience and the first African survey of this kind was conducted at the UCT as a pilot project.

At the end of the first phase of HERANA in 2011, it was proposed that in the second phase of HERANA the aim would be to explore ways in which higher education contributes to citizenship in Africa (CHET, 2012a, p.1). HERANA decided to partner with the UCT as UCT had been invited and decided to sign up with the SERU project hosted by UC Berkeley. SERU is a survey that deals with the question of the student experience in a similar way to the other student engagement surveys, such as the National Survey on Student Engagement (NSSE), which has been adapted to the South African context as the South African Survey on Student Engagement

(SASSE). As mentioned in section 3.5, SERU is different from NSSE and SASSE in that those surveys do not allow the option of modifying the survey instrument to suit particular regional and institutional needs. SERU, in contrast, has a common core of questions (i.e. a common 'module') used in all universities where the survey is conducted as well as modules or groups of questions that are either common to a particular regional or national group of universities only, or institution-specific (Center for Studies in Higher Education University of California Berkeley, 2006).

HERANA is interested in looking at how the SERU survey can be used to find information regarding citizenship education. It was decided that the first component of the project was to conceptualise and develop a survey module dealing with citizenship education; to conduct a pilot study with the new module at the UCT; and to report on the results of that survey. The decision was made to collaborate with the Center for the Studies in Higher Education at the University of California Berkeley in adapting the SERU International Survey to UCT in 2012 and it was implemented at UCT in late 2012. This was done with the provision that the survey methodology was amended, adapted and indigenised to fit in the South African context (CHET, 2012b, p.1).

The continuing research project of SERU-AFRICA survey presented me with an opportunity to become involved and investigate how citizenship education takes place within a university. The study is different from previous HERANA and SERU studies as it measures what student activities contribute to citizenship development and addresses gaps in the literature. Participating in an existing survey such as SERU had a number of other advantages, including sharing of resources and expertise.

The survey is done in the form of an undergraduate student census, spread across all faculties. Furthermore, the SERU-AFRICA survey, in particular, is flexible in that it allows for the inclusion of a set of questions in their questionnaire that follows from my research questions, while other existing surveys (like SASSE) do not allow for this option.

The research questions require the ability to generalize and this is another reason why participation in this survey is chosen. A survey with a large and representative group of

respondents is an efficient method to establish what activities students are involved in and to what extent they are involved in these activities. Creswell, for example, argues that a survey is a good procedure to describe a large population (2005, p. 52).

I was part of the process involved amending, adapting and indigenising the survey methodology to fit the South African context. This I did in collaboration with a team of researchers. This process took place over several months during 2012 and involved interviewing a number of people who provided input concerning the amendment, adaptation and indigenisation process. Once the interview process was completed each item in the survey was examined and, where necessary, was adapted to suit the South African context.

Furthermore, the original SERU questionnaire did not deal substantially with the question of democracy and citizenship and it didn't address what type of student engagement supports democracy. New questions dealing specifically with citizenship were developed and included in the survey. This aspect is discussed in more detail in the following section that deals with the questionnaire.

4.2.2 The questionnaire

A questionnaire is used as the data collection tool. In survey research, questionnaires are commonly used and a questionnaire is described as a "document containing questions and other types of items designed to solicit information appropriate to analysis" (Babbie and Mouton, 2001, p. 646).

The SERU survey is an electronic survey whereby students are required to complete an online questionnaire. There are various advantages and disadvantages associated with using electronic surveys. Some of the advantages involving electronic surveys are that they have fewer missing responses and can be coded more easily than older versions (Boyer, Olson, Calantone and Jackson, 2002, p.357).

The disadvantages are that electronic surveys require more time and resources to develop, and electronic surveys require familiarization with the software packages (Boyer et al., 2002, p. 370). Once the questionnaire has been completed, the data is collected electronically by UC Berkeley.

The original SERU questionnaire consists of four types of modules.

The first module consists of core questions focusing on academic engagement, student life and goals, as well as a section on the student's background and personal characteristics. This module is common to all institutions. The second module deals with topical research questions offering options on global skills and awareness, community and civic engagement and uses of technology. This module is also common to all institutions. Regional/nation-specific modules and institution-specific modules are also included in the questionnaire and are only implemented in the regions/institutions for which they have specifically been designed. The SERU consortium offers the option of including modules which focus on regional/ national specific questions and modules of institution-specific questions and a citizenship module is included as a region-specific (Africa-wide) module.

The survey underwent an indigenisation process whereby questions were adapted to suit the South African context. Indigenising the survey involved changing some of the questions and the terminology to make it more relevant to the South African context. The indigenising process of the survey started in May 2012 and involved interviews with staff and students who provided input concerning how the questionnaire could be indigenised. The adaptation, amendment and indigenisation process of the survey follows a process which starts with the construction of a conceptual map that is used to construct the citizenship module. The following section first discusses the conceptual map and looks at the relationship between the questionnaire and the conceptual map and is followed by a discussion which focuses on the modules contained in the original questionnaire and how they were amended in this study. In this respect the questions in the survey are helpful in identifying student attitudes and the extent of student participation in various activities related to critical thinking, support for democracy, appreciation of diversity and students' commitment to social responsibility and community development.

A conceptual map is used in this study and its purpose is to assist in constructing the citizenship module. The conceptual map also facilitates in the analysis process as it helps in showing the relationship between the empirical indicators and the research questions in the study. The conceptual map consists of sections that contain the broad research topic and then links it to a

conceptual family. This conceptual family contains specific concepts that are linked to specific items in the questionnaire. The conceptual map appears in Appendix F. Once the indigenisation process was completed recommendations were sent to UC Berkeley who adapted the online questionnaire. The final electronic version of the complete survey was then sent to UCT.

The citizenship module covers several questions that appear throughout the questionnaire and focus on the following areas such as which activities students are involved in that may foster critical thinking within the curriculum as part of the student's academic work or in other activities the students are engaged in such as special programmes they may attend. Next, the questionnaire asks questions that seek to understand how proficient students regard themselves in having developed critical thinking skills. An important section of the questionnaire deals with questions that measure student attitudes toward democracy and citizenship that look at how involved students are in political organisations, the students' understanding of democracy and politics, student usage of media, as well as questions that look at how important students consider certain citizenship attributes related to politics and democracy. The questionnaire also measures students' community involvement that forms part of the student's academic work as well as community work that the student participates in on a voluntary basis. These questions are used to measure if the student's involvement with community work and attitudes towards community engagement correlate with one another. Finally, the questionnaire covers questions on how students engage with diversity; this section deals with how students interact with people who are different from them in terms of aspects such as race, religion, sexual orientation, nationality, age and language. The questions cover aspects involving appreciating, tolerating and understanding diversity as well as students' proficiency in local and foreign language skills.

In accordance with Creswell (2005, p.47) there are "specific, narrow questions to obtain measurable and observable data on variables". The questionnaire contains a combination of open-ended and closed questions, with most questions being close-ended where students are required to select an answer from a list of options and many of the questions made use of a Lickert scale as is shown in the questionnaire in Appendix E. The module is designed by structuring the questions in the survey in a very specific, structured manner which focuses on specific aspects around education for democratic citizenship, i.e., participation in activities, attitudes and skills. The following section discusses the population in the study.

4.2.3 Population

This study was conducted on undergraduate students at the UCT, in this vein the target population was all registered undergraduate students during the 2012 academic year. The survey invited a total of 18976 registered undergraduate students to participate across all faculties in 2012. Of the total of 18972 students, 5545 were in the Commerce faculty, 3227 in the Engineering faculty, 5555 in the Humanities faculty, 550 in the Law faculty, 2 244 in the Health Sciences faculty and 1 851 students in the Science faculty. The following section discusses the sampling and sampling procedures used in this study.

4.3 Sample

Babbie and Mouton define the sampling population as“ … the theoretically specified aggregation of study elements” (2001, p.173). In this study the population refers to all undergraduate students at UCT. The SERU survey has a census design and all undergraduate students, across all faculties, at UCT were invited to participate in the survey. The potential design problems that are usually associated with sampling are therefore overcome as a result of the survey design.

The third column in Table 4.1 shows the realized sample and reveals that before weighting was applied the sample was composed of 389 males, 472 females, including 317 Black students, 6 Chinese students, 97 Coloured students, 50 Indian students, 298 White students and 93 students in the Non Applicable/ Unknown category. The sample consisted of 97 students from Health Sciences, 153 from Engineering, 177 from Commerce, 292 from Humanities, 115 from Sciences and 27 from the Law faculty. Furthermore the sample was composed of 119 Foreign National students, 727 South African (representing 84.4%) and 15 South African permanent resident (representing1.8%) students. A more detailed breakdown of the sample is provided in the following chapter dealing with the analysis and presentation of the data.

Although all undergraduate students were invited to participate in the survey, not all students completed the survey. Initially the survey was supposed to be completed by the end of 2012 and

the target that was set at the time was to have 25% of the 18 972 undergraduate students at UCT complete the survey, which would have amounted to a total of 4743 students. However, by the end of 2012 a total of only 861 students had completed the survey.

Students were stratified into groups according to faculty and population groups to avoid errors that could occur during sampling. Babbie and Mouton define stratification as "…the grouping of the target population into homogeneous groups (or strata) before sampling" (2001, p.647). This was done in order to ensure greater representativeness in the sample from all population groups, as well as faculties and fields of study within the university.

4.3.1 The ideal and realised sample

The university put certain measures in place to encourage as many students as possible to participate in the survey and these included a campaign that was conducted before and during the survey, reminding students via emails to complete the survey, putting up posters and video clips on the university website to remind students to complete the survey. Despite the measures the university put in place to encourage as many students as possible to participate in the survey, it still resulted in a low student participation rate. The ideal sample was expected to amount to 25% of 18 972, the total undergraduate student population. As a result the need arose to have the sample realised.

Altbach holds the position that student culture and activism has changed during the last half of the twentieth century and currently students at university are mostly of a similar age and women, ethnic and racial minorities which were once excluded are now part of the academic community (2006, pp. 329-330). Representativeness of the sample is therefore essential and by the end of 2012 the sample that had been realized was analyzed in relation to its representativeness in terms of key indicators such as gender, race and faculty as they are important indicators regarding the level of student involvement in organizations on campus. The data was collected by UC Berkeley and once it was received from UC Berkeley, the sample had to be weighted correctly according to faculty and population group to make sure that it was representative of the student population.

Frequencies were run and it was found that faculty, gender and race were not representative of the population. The Health Sciences and Commerce faculties were under-sampled while the Science, Law, Engineering and Humanities faculties were over-sampled. The sample was then statistically weighted to mirror the distribution in the overall population. Initially males were under-sampled with a total number consisting of 389 students that changed to 374 students after the weighting procedure was applied, while the females were over-sampled with an initial number of 472 students which changed to 487 students after the weighting procedure was applied. Initially the Health Sciences and Commerce faculties had 97 and 177 students represented in each respective faculty. After the weighting procedure was applied these totals changed to 86 and 202 students within the respective Health Sciences and Commerce faculties. Within the Engineering, Humanities, Sciences and Law faculties the total numbers of students before the weighting procedure was applied were 153, 292, 115 and 27 students respectively. After applying the correct weights the totals in the Engineering, Humanities, Sciences and Law faculties changed to 128, 324, 98 and 23 students respectively. It was also found that the Coloured, White and Indian population groups were under-sampled while the Black, Chinese and Unknown population groups were over-sampled. Before the weighting procedure was applied the Coloured, White and Indian population groups consisted of 97, 298 and 50 students respectively. These totals changed to 131, 296 and 64 students in the Coloured, White and Indian population groups respectively. Before the weighting procedure was applied the over-sampled Black, Chinese and Unknown population groups consisted of 317, 6 and 93 students respectively. These totals changed to 271 students in the Black population group while the Chinese and Unknown population groups remained the same after the weighting procedure was applied. Table 4.1 reveals the realised sample and the weights that were applied.

Table 4.1 Applied weights

		Weight	N Realised sample	N Weighted	Weighted %	% in the Undergraduate Population
Gender	Male	0.961	389	374	43%	43%
	Female	1.032	472	487	57%	57%
Faculty	Health Sciences	0.887	97	86	10%	10%
	Engineering	0.837	153	128	15%	15%
	Commerce	1.141	177	202	23%	23%
	Humanities	1.110	292	324	38%	38%
	Sciences	0.852	115	98	11%	11%
	Law	0.852	27	23	3%	3%
Race	Black	0.855	317	271	31%	31%
	Chinese	1.00	6	6	1%	1%
	Coloured	1.351	97	131	15%	15%
	Indian	1.28	50	64	7.5%	7.5%
	White	0.993	298	296	34%	34%
	Unknown	1.00	93	93	11.5%	11.5%
N			861	861	861	861

The sample was considered representative of the university population once the aggregate characteristics of the sample closely matched those of the undergraduate student population (*see* Babbie and Mouton, 2001, p. 172). It is important to emphasize that this did not consist of a small sample drawn from the population but were all the completed surveys collected at the end of 2012 that were weighted to reflect the student population at the university.

4.4 Data collection procedures

The data collection method was an electronic survey administered centrally by the CSHE Berkeley. UCT embarked on a campaign to create awareness concerning the survey and this included sending email reminders to students; and using methods such as posters to encourage students to complete the survey. The survey was made available to students in October 2012 and by the end of 2012, 861 students had completed the survey, which is the sample that was used in this study. The survey continued at UCT in 2013 and was finished by May 2013. UC Berkeley was responsible for the data collection and provided UCT with information regarding the results of the survey of the first phase of the survey that was collected up until the end of 2012.

4.4.1 Reliability of sampled data

In order to ensure that the data is trustworthy, the reliability and validity of the survey need to be considered. Babbie and Mouton define reliability as, "…a matter of whether a particular technique, applied repeatedly to the same object, would yield the same result each time" (2001, p. 119). They maintain that the reliability of a survey can be ensured if *an established measure is used*. Another way that reliability can be ensured is by making use of the test-retest method (Babbie and Mouton, 2001, p.121) In this case the SERU survey is an established survey that has been used in several other countries. In addition to using an established measure, other measures were also put in place to ensure its reliability when used in the South African context.

Another measure involved determining if the questions in the survey were indeed relevant to the South African context. In this respect, Babbie and Mouton state that one should ask questions that respondents are, "…likely to know the answers to" (2001, pp. 120-122). In order to accomplish this, the questionnaire was indigenised to the South African context and this indigenisation process involved a number of pilot-tests and re-tests whereby the draft questionnaire went through a number of draft versions. After each round of interviews that involved students and staff members at UCT, the questionnaire was re-drafted to determine if the content and language used in the survey were relevant and clear. This involved eliminating questions that were not relevant, making changes to the terminology, as well as adding new questions that were required. This cleared any cases of ambiguity in the questions. The process

also allowed for measuring the time needed to complete the questionnaire. These measures that were put in place therefore ensured the reliability of the sampled data in this study.

4.4.2 Validity of sampled data

Babbie and Mouton define validity as "the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration" (2001, p. 122). A more elegant way of defining the validity of a measure would be that it "…measures what it is supposed to" (Black and Champion, 1976, pp. 232-234). There are several ways in which the validity of a survey can be ensured. The first involves content validity which Babbie and Mouton describe as, "how much a measure covers the range of meanings included within the concept" (2001, p. 123). In this study a conceptual discussion and concept map illustrate the range of meanings covered by the survey. This is outlined in Table 4.2 below. Construct validity deals with the internal coherence of the survey and is described by Babbie and Mouton as being based on "…the logical relationship among variables" (2001, p.123). In addition, construct validity was considered by ensuring that the questions in the questionnaire were clearly linked to concepts that had to be measured. For this purpose, the conceptual map in Appendix F illustrates these links.

Table 4.2: Student activities and citizenship attributes

Student Activities	Citizenship Attributes
The student activities that may contribute to critical thinking skills.	Critical thinking and analytical skills
Democracy and political participation which consist in: -Cognitive awareness of democracy and politics as measured in terms of media use, interest in politics and academic engagement with socio-political challenges. -Political participation consists of activities such as voting, communing and contacting, student political leadership positions and participation in student political organisations.	Attitudes towards democracy/citizenship consist in: -Conception of democracy -Support for democracy -How important students consider certain citizenship attributes
Engagement with diversity - Engagement with students who are different in terms of beliefs, political opinions, nationality, race, sexual orientation, social class, disability, health/ HIV status. -Countering racism, sexism, homophobia, xenophobia, etc. -Students' language skills	The ability to appreciate diversity consists in: -The ability to appreciate, tolerate and understand diversity -The ability to appreciate cultural and global diversity
Community Involvement activities -Volunteering and other community involvement activities students engage in. - Involvement in organisations that encourage volunteering and community work.	Commitment to social responsibility and community development

Lastly, a further measure that was put in place to ensure that the collected data was reliable and valid - the SERU coordinator at UC Berkeley's CSHE checked the questionnaire (including the new questions) and corrected any ambiguity, mistakes and language used in the questions after the questionnaire was amended and indigenised. The process of gaining ethics clearance for the research instruments involved a final check of the questionnaire. This is discussed in more detail in the section dealing with ethical considerations. The following section deals with data analysis.

4.5 Data Analysis

The aim of data analysis is "…to understand the various constitutive elements of one's data through an inspection of the relationships between concepts, constructs or variables" (Mouton, 2001, p.108).

The data that was received went through a process of data cleaning to eliminate errors that could have occurred (Babbie and Mouton, 2001, p.417). The data for this study was analysed in terms of the matters raised in the literature review which identified the student activities that contribute to citizenship education and it was considered to what extent the types of activities studied correspond with those mentioned in the literature (Mouton, 2001, p. 108). The survey responses were collected in an electronic database hosted at the University of California Berkeley, from where both raw data and data reports were provided. Regarding the citizenship module, raw data and data reports received from the University of California Berkeley were analyzed further through the use of Statistical Package for the Social Sciences (SPSS). The analysis determines what activities students were involved in that contribute to citizenship education. In addition, it explores to what extent involvement of students in certain activities (as independent variables) support the development of certain citizenship attributes (as dependent variables). The different variables in this study have been discussed in the previous section dealing with the analytical framework. A series of tests were performed during the analysis of data that included Spearman Correlation tests that are performed to determine the correlation for ordinal variables or numerical variables which are not normally distributed. Factor analysis was also conducted and the purpose of this analysis is that it reduces a large number of variables and clumps those that fit together, resulting in the construction of "latent variables". Finally, Regression analysis was conducted. Regression analysis is used to predict whether dependent variables such as knowledge and support of democracy, appreciation of diversity, commitment to social responsibility and community development and critical thinking depend on factors such as gender, faculty and population groups, as well as independent variables such as, for example, student participation in activities that contribute to critical thinking and student involvement in volunteering.

The following section discusses the ethical considerations relevant to the study.

4.6 Ethical considerations

Given that my study is part of a larger project involving UCT, UC Berkeley, and CHET, permission to conduct the study at UCT and the ethics clearance for the research instruments (including the new questions on citizenship and social justice) was obtained by the project

partners. Thus, the ethical considerations relevant to this proposal are limited to my involvement in the project. I was also part of the team that compiled the ethics application to the UCT ethics committee.

As noted above, the overall research took the format of an online survey whereby students were invited to participate. There was an information sheet that was provided on the first page of the survey so that students could decide whether or not they wanted to participate. The information sheet provides information about the project as a whole, the confidentiality, privacy and anonymity of participants and it explains that participation is voluntary and that participants can withdraw at any stage of the process. The information sheet also indicates that there are no consequences should participants decide to withdraw and that there are no benefits in participating. There is also a consent form included in the online survey which requires participants to either agree to or decline participation. The participant would only be allowed to proceed with the survey once the informed consent has been obtained. The questionnaire that was used is shown in Appendix E. Moreover, concerning ethical considerations following collection of the data, participants were reassured that there would be no harm to them as all information that they provided in the survey such as names or student numbers would remain anonymous and all information would only be reported in aggregate format. Therefore adherence to the highest technical standards throughout the research process (Babbie and Mouton, 2001, p. 522), including analysis and reporting was ensured (2001, p. 526).

Regarding research and reporting, the ethical standards as determined by the University of the Western Cape were adhered to and there was no deviation from adherence to the highest possible ethical and technical standards both during the research and writing of the dissertation regarding participation of subjects, confidentiality, analyses and reporting. The study is done under supervision and all data related to the study will be stored after the completion of my study by the HEMA programme in the Faculty of Education.

4.7 Limitations in the study

Survey research has various limitations that are usually related to matters concerning sampling, data collection, data analysis and interpretation of the data. In my case there were limitations concerning the sample of students that were used in the analysis. As mentioned previously the sample of 861 was not the ideal sample size that was hoped for in this study, given the size of the student population. However, this was the sample of students who completed the survey at the end of 2012 even though it would have been preferable to have a larger sample since a larger sample may have been more representative of the student population. It would also have been interesting to see if some of the results involving analysis would have been different had a larger sample been obtained. The size of the sample may also have had other results involving analysis. For example, there were a very small number of students from the Law faculty and they were combined with the Humanities faculty. However, despite various efforts to encourage more students to participate in the survey, the sample that was available was the one I had to use to conduct my analysis and an attempt was made to overcome this problem by weighting the sample in order to make it representative of the population.

Several analysis procedures were used using SPSS which involved descriptive analysis and cross tabulations to show relationships between variables, conducting several tests such as normality tests, correlation testing and paired sample t-tests; factor analysis, creating latent variables or indices to create a single collective variable from a number of questions (as suggested in the conceptual map of Appendix F) and conducting regression analysis. In certain situations such as those involving testing for normality, assumptions had to be made that the distribution of scores was normal even in situations where the analysis revealed that it was not normal. This was done in order to enable further analysis. Although making use of such assumptions is regarded as an acceptable practice in statistical analysis, it may also be seen as a limitation and under the circumstances this was done merely to enable further analysis in order to generate results that would answer my research questions. However, the analysis delivered useful results to answer the research questions. Despite these limitations, the analysis was sufficient to support the conclusions and recommendations of the study.

This chapter provided a detailed discussion concerning the research design and methodology, rationale for the research approach that was taken, the questionnaire, sample, data collection procedures, data analysis and ethical considerations of the study. The following chapter presents the data and the analysis that was conducted for this study.

CHAPTER FIVE

Data Presentation and Analysis

5.1 Introduction

This chapter presents the data of the study. As discussed in Chapter 4, this study uses a survey to obtain the required data.

Four key sub-questions are addressed in the study.

The first question involves determining what activities students are involved in that may contribute to their critical thinking skills. The study seeks to find out what activities students are involved in that may contribute to their critical thinking skills and not students' critical thinking abilities.

The second question involves determining what student attitudes towards democracy are, students' understanding of democracy and what activities students participate in that support democracy.

The third question looks at students' appreciation of diversity, how students interact with diverse others; and if students are involved in organisations that encourage and promote diversity interaction.

The fourth question involves looking at how important students consider their involvement in volunteering, community work and social responsibility programmes. In the literature review as well as in the theoretical framework this has been conceptualized as "commitment to social responsibility and community development".

The results are presented in the following sections: critical thinking, support for democracy; appreciation of diversity and commitment to social responsibility and community development.

5.2 Sampling

As noted in Chapter 4, the results of this study draw from a sample of 861 students, 25% of all undergraduate students at the University of Cape Town. There were certain measures taken to ensure the generalizability of the sample. Firstly, the survey has a census design and the sample

consists of all undergraduate students who completed the survey up until the end of 2012. The sample was also weighted in terms of the following variables: faculty, gender and population groups to mirror the distribution in the overall population. This was done to ensure that the sample could be generalized in relation to the overall population. The first step in the analysis process involves performing a reliability analysis. The following section looks at the reliability analysis of the research instrument.

5.3 Reliability Analysis

Reliability involves the consistency of a technique and if it would yield the similar results each time (Babbie and Mouton, 2001, p.119) Cronbach's alpha coefficient is used in reliability analysis and is one of the most popular indicators of internal consistency. Generally a scale should have a measurement above 0.6 and Table 5.1 reveals that almost all the concepts used during analysis have a Cronbach alpha coefficient above 0.7. For instance, for the proficiency in critical thinking skills scale the Cronbach alpha coefficient is 0.922; 0.834 for the importance of citizenship attributes scale; 0.882 for the involvement in activities scale; 0.891 for the discussing political matters scale; 0.845 for the gaining a deeper understanding of others through conversation scale; 0.823 for the academic participation scale; 0.837 for the contact with academic staff scale;' 0.820 for the development of academic skills scale and 0.798 for the preference for democracy scale. The only concepts that did not have a Cronbach alpha coefficient above 0.7 were hours spent on activities with a Cronbach alpha coefficient of 0.581 and involvement in organisations with a Cronbach alpha coefficient of 0.625.

Table 5.1 Reliability test scores

Question	Value of Cronbach's Alpha	Number of items
Proficiency in Critical Thinking Skills (Question 1.7)	0.922	44
Scale: Hours spent on activities (Question 1.1)	0.581	16
Importance of citizenship attributes (Question 6.1)	0.834	8
Question 7.3 (Scale: Involvement in organisations)	0.625	17
Question 6.7 (Scale: Involvement in activities)	0.882	8
Question 6.5b (Scale: Discussing political matters)	0.891	5
Question 3.7(Scale: Gaining a deeper understanding of others through conversation)	0.845	8
Question 1.3 (Scale: Academic participation)	0.823	15
Question 1.5 (Scale: Contact with academic staff)	0.837	6
Question 1.2 (Scale: Development of academic skills)	0.820	9
Question 6.4 (Scale: Preference for Democracy)	0.798	3

These results therefore mean that almost all the concepts used during analysis indicate good internal consistency as the Cronbach alpha coefficient reports above 0.6 for all the other concepts, except for hours spent on activities and involvement in organisations. The next section explores the descriptive statistical analysis that was done and how the sample of 861 students was analysed. This involved analysing the demographic variables involved in the study.

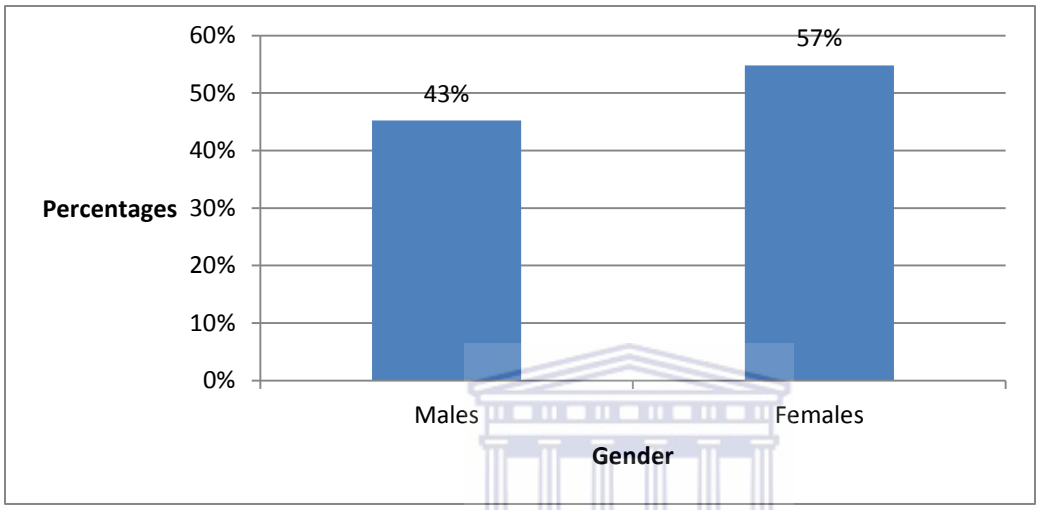
5.4 Demographic variables

As noted in chapter 4, the sample that was analyzed was 861 undergraduate students across six faculties. The year of study for the students ranges from first year students to students completing their sixth year of undergraduate studies. The sample was weighted in order to make it representative of the larger student population at the university as shown in Table 4.1 in section 4.3.1. In the following section the composition of the sample is analysed in terms of gender, population groups, age groups, nationality, faculty and academic year of study.

5.4.1 Gender

Out of the 861 students there are 374 males which represents 43% of the sample, while the number of females amount to 487, which results in a representative percentage of 57% female students.

Figure 5.1 Gender

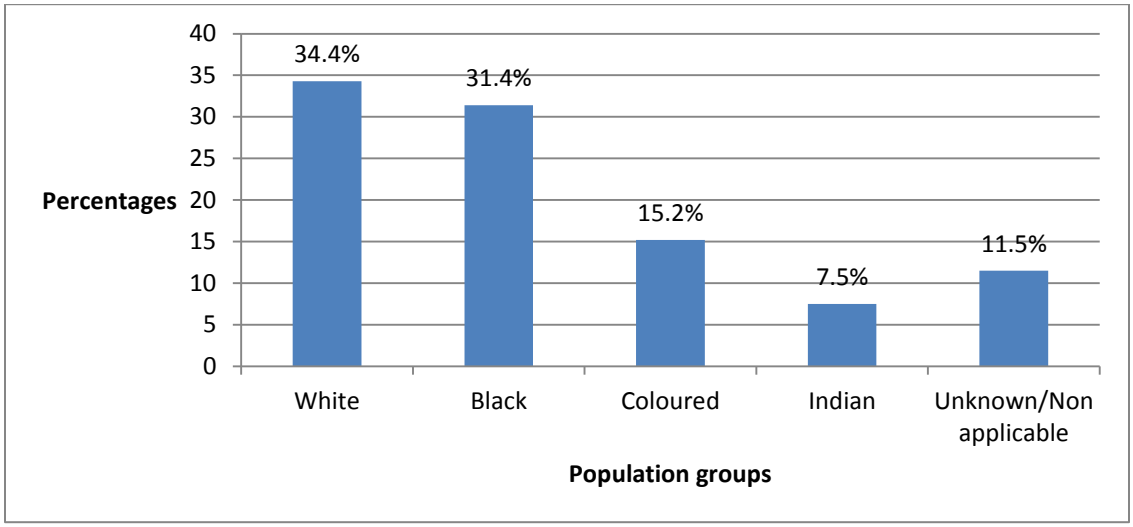


N=861

5.4.2 Population Group

The number of Black students that participated in the survey are 271 which represents 31,4% of the 861 student participants , while 6 Chinese students (0.7%),131 Coloured students (15.2%), 64 Indian students (7.5%), 93 Non Applicable/ Unknown students (10.8%) and 296 White (34.4%) students participated in the study. The Chinese population group is a very small group and was added to the Unknown population group, with the result that the cumulative total percentage for the Unknown population group amounts to 11.5%, which is illustrated in Figure 5.2

Figure 5.2 Population groups

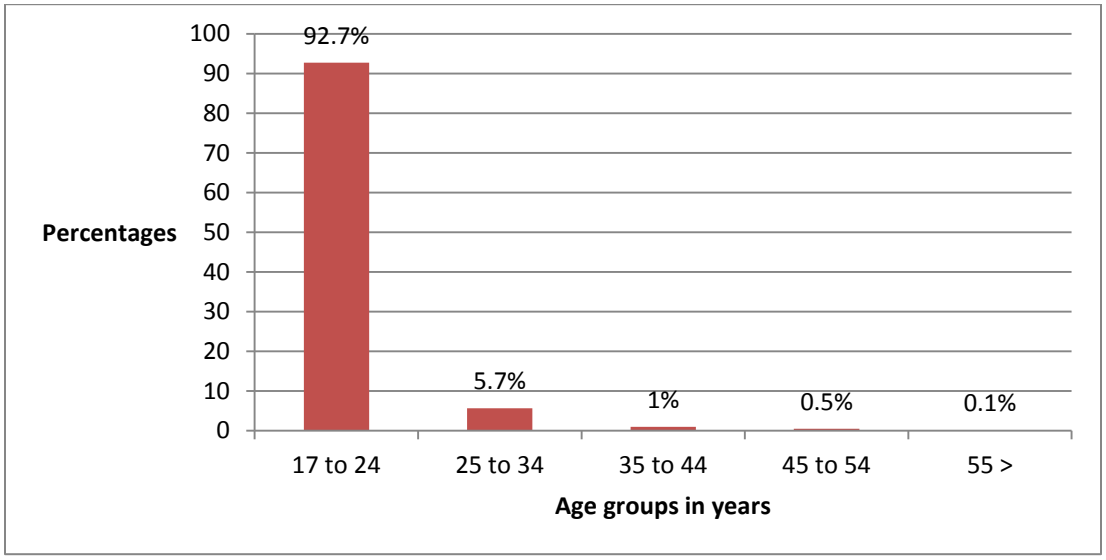


N=861

5.4.3 Age groups

Figure 5.3 reveals the age groups of students who participated in the survey. The students are grouped into the following groups. The first group consists of 17 to 24 year old students, the second, consists of 25 to 34 year old students, the third, of 35 to 44 year old students, the fourth, of 45 to 54 year old students and the last group consists of those students aged 55 years and above. The 17 to 24 year age group represents 92.7%, the 25 to 34 year age group represents 5.7%, the 35 to 44 year age group represents 1%, the 45 to 54 year age group represents 0.5% and those aged 55 years and above represent 0.1% of the 861 students in the sample. Most of the students who completed the survey are in the 17 to 24 year age group, which can be attributed to the fact that this is an undergraduate survey and most undergraduate students generally fall into this age group.

Figure 5.3 Age groups of students

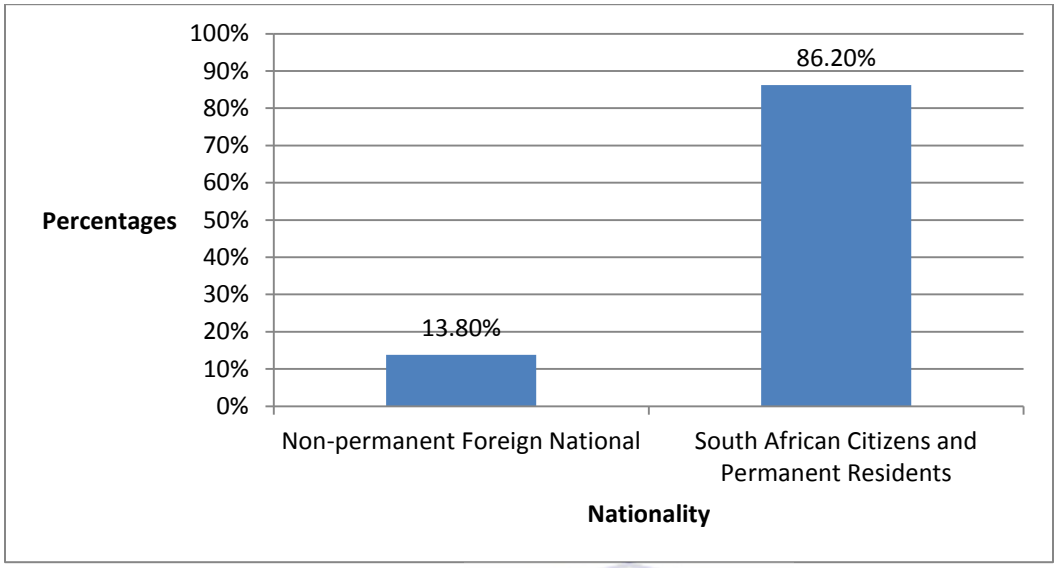


N=861

5.4.4 Nationality

Figure5.4 reveals that 119 Foreign National students (representing 13.8% of the sample), 727 South African students (representing 84.4% of the sample) and 15 South African permanent resident students (representing 1.8% of the sample) completed the survey. The South African citizens and South African permanent residents are combined into a new group called South African citizens and Permanent Residents (representing 86.2% of the sample) while the Foreign Nationals are re-named Non-permanent Foreign Nationals.

Figure 5.4 Nationality

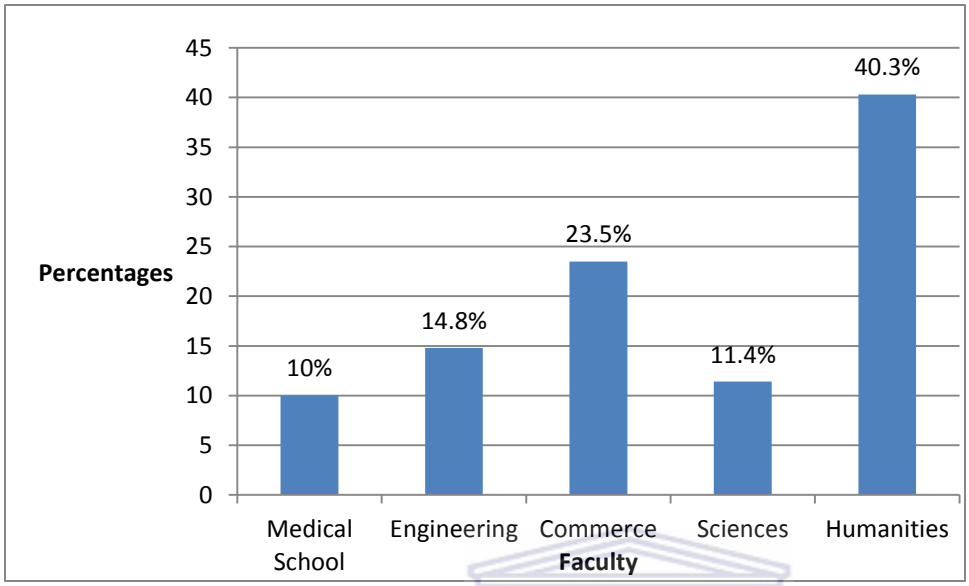


N=861

5.4.5 Faculty

The student sample is spread across all faculties at the university and out of the 861 students, Figure 5.5 reveals that 86 students are from the Health Sciences/ Medical school (representing 10%), 128 are from Engineering (representing 14.8%), 202 from Commerce (representing 23.5%), 324 from Humanities (representing 37.6%), 98 from Sciences (representing 11.4%) and 23 (representing 2.7%) from the Law faculty. The Law faculty represents a very small percentage and is added to the Humanities faculty, with the Humanities faculty resulting in a cumulative total of 40.3%.

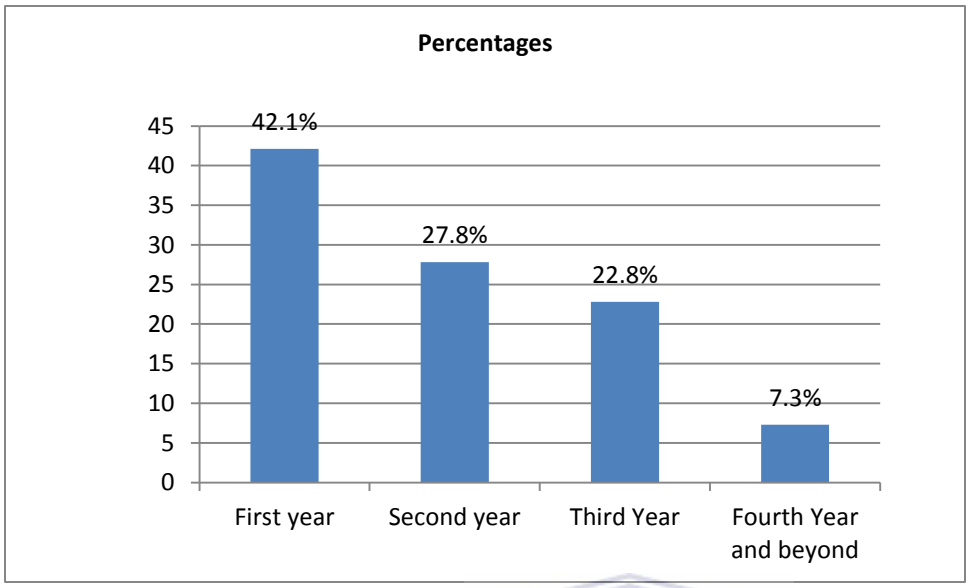
Figure 5.5 Faculty



5.4.6 Academic year of students

Students ranging from first year students to those completing their fourth year of study and higher are represented in Figure 5.6. Out of the sample of 861 students 362 students were in their first year of study (representing 42.1%), 239 in their second year of study (representing 27.8%), 196 in their third year of study (representing 22.8%) and 64 in their fourth year of study and above (representing 7.3%),

Figure 5.6 Academic year of study



N=861

5.4.7 Conclusion

The majority of the students who completed the survey were between the ages of 17 and 24 years of age and predominantly from the White and Black population groups. Most of the survey participants came from the Humanities faculty while most of the participants were female, South African citizens and permanent residents. A brief review and descriptive analysis of the literature review was provided at the start of the chapter which serves to remind the readers what the variables are that are being analysed in this study. The following section explores the analysis of each of these variables. The analysis of each variable is explored independently, starting with the critical thinking variable. This is followed by an exploration of the other variables in the study.

5.5 Critical thinking

This section focuses on finding out what activities students are involved in that may contribute to the improvement of their critical thinking skills. The analysis for critical thinking follows an interesting process, starting with a discussion of how the conceptual map is used in the analysis process and then exploring the tests used in the analysis process. A series of tests are performed that lead to a regression analysis to determine what activities students are involved in that may

contribute to their critical thinking skills. First a look will be taken at the relevance of the conceptual map and how it guides the analysis.

The literature review has identified in section 3.6.2 that there are certain activities that students participate in that may help in improving their critical thinking skills. These activities are identified and grouped under the conceptual family that deals with participation in activities that may contribute to the development of critical thinking in the conceptual map in Appendix F. These include, amongst others, contributing to class discussions, bringing up ideas or concepts from different courses during class discussions and interaction with lecturers. The conceptual map also identifies the questions that are tied to these activities and it will be shown later in this section how these questions have been used in the analysis process but first it will be determined if there is a difference between students' critical thinking skills at the time they started university and their current critical thinking skills.

The evaluation of students' perceived critical thinking at the start of their studies and at the time that they completed the questionnaire is tested using the following null hypothesis: students' perceived critical thinking skills at the beginning of their studies and their current perceived critical thinking skills remain the same. In this respect perceived current critical thinking refers to students' perceived critical thinking skills at the time that the questionnaire was completed. The word "perceived" is used since the critical thinking scores are self-reported by students. It is important to remember that self-reporting of scores may lend itself to bias and may not necessarily reflect students' actual critical thinking skills.

The null hypothesis is tested using paired-samples t-tests. Paired samples t-tests are useful in the analysis for this study as it compares the scores of the same group of people on two different occasions after exposing them to some form of intervention (Pallant, 2011, p. 243-244).The first of the two different occasions in this case refers to the start of the participant's' studies at university and "current critical thinking" refers to the time that the participant completed the questionnaire. The intervention being referred to involves student participation in activities that may contribute to the improvement of their critical thinking skills.

The paired-samples t-tests are preceded by factor analysis and test for normality. The factor analysis process enables variables that fit to be clumped together and also to reduce a large number of variables into a small number which is manageable and allows inclusion in the facilitation of testing a theory (Creswell, 2013, p. 174). Factor analysis also results in the construction of "latent variables". The normality of the distribution of scores has to be tested before the paired-samples t-tests can be done. In statistical analysis normality refers to the distribution of scores where the largest frequencies of scores are to be found in the middle with smaller frequencies occurring towards the extremes, resembling a bell-shaped curve. Tests for normality are done for the dependent variable. The issues surrounding the use of "latent variables", factor analysis, normality testing and paired sample t-tests are discussed later in this chapter.

The next section looks at the relationship between variables involving critical thinking and the bivariate analysis that was done involving critical thinking.

5.5.1 The relationship between variables involving critical thinking

This section explores the relationship between variables involving critical thinking. This analysis is done in two phases. The first phase involves the use of cross tabulations to find out if students of a certain faculty, academic year, gender, population group and nationality are more frequently involved in activities that may contribute to improvement in critical thinking than other students. The second phase of analysis calculates the differences in scores between students' perceived critical thinking skills at the start of their studies and their current perceived critical thinking skills.

This first question in the questionnaire concerns the number of hours students spend on activities that may contribute to their critical thinking skills, students' interaction with lecturers, students' contribution to class discussions and bringing up ideas in class, how often students are required to break down material into component parts or arguments into assumptions to see the basis for different outcomes or conclusions and judging the value of information, ideas, actions, and conclusions based on the soundness of sources, methods and reasoning.

The results of the analysis are in agreement with the claims of several scholars that the amount of time students spend engaged in academic activities, student interaction with their peers and their lecturers and the kind of activities students are participating in within the curriculum all play a significant role in the development of their critical thinking skills (Pascarella and Terenzini,1991; Astin, 1997; Tinto, 1997; Anderson and Krathwohl, 2001; Levis-Fitzgerald et al., 2003; Forehand, 2010).

Generally it was found that the extent of student participation varies according to academic year. The majority of students spend more than 16 hours a week attending lectures, tutorials, discussions, workshops and other activities that form part of their academic, with 122 out of 859 students (representing 14%) spending more than 30 hours attending lectures, tutorials, discussions, workshops and other activities that form part of their academic work as revealed in Table A1.1 in Appendix A1.

However it was found that participation in other activities that may contribute to the development of critical thinking skills, such as tutoring and mentoring, has been very limited across all faculties where 61% of the students across all the faculties (which represent 520 out of n=849) report 0 hours involvement in tutoring or mentoring as shown in Table A1.2 in Appendix A1.The following section contains the second phase of bivariate analysis.

The survey contains questions that require participants to rate their own critical thinking skills when they started their studies at UCT and at the time that they completed the questionnaire. Although these questions rely on self-reported scores they are still useful since using them allows for deeper analysis to be conducted whereby one can determine what categories of participants perceived that their critical thinking skills had improved and by how much their skills improved. This analysis involves calculating the difference in the participants' self-reported scores between the time they started their studies and the time when they completed the survey. The purpose of calculating the differences is to determine by how much their proficiency has improved and also to see at what stage during their university education this improvement occurs the most. In this regard it is important to determine not only if, for example, second year students think that their critical thinking skills improve more than those of first year students, but also by how much

their skills have improved. In order to find this out, merely using statistical means between scores obtained at the beginning of students' studies and scores at the time that students completed the survey does not provide enough depth of understanding as it presents a global picture of the significant difference between perceived critical thinking at the start of the students' studies and their current perceived critical thinking skills.

Although not frequently employed in statistical analysis, using this technique of calculating differences may be helpful in determining by how much students perceived critical thinking had either improved or deteriorated, i.e., if it had improved by one, two or more points on the scale that was used for the questions involved. Although the logical idea is that students would not report a decline in critical thinking, the study makes provision for such cases and this is reflected in the critical thinking difference column with a negative sign as shown in Table A1.3 in Appendix A1.

The results using cross tabulations reveal that the more time students spend at university, the more their proficiency improves in critical thinking skills. The results of the cross tabulations also reveal that 44.3 % of students in their fourth year and above report an improvement of two scale points in critical thinking proficiency scores. The second phase of bivariate analysis involving the calculation of differences therefore reveals that the more years students spend studying at university the more their perceived critical thinking skills improve.

It was found that the interaction with variables such as faculty, academic year, gender, population group or nationality does not have a significant association with perceived critical thinking. This is shown in Table A2.7 in Appendix A2 and will be discussed in more detail later in the section dealing with the interaction with other variables. The following section looks at the multivariate analysis involving critical thinking.

5.5.2 Determining the activities that contribute to students' critical thinking skills

This section presents the multivariate analysis used to determine what student activities contribute most to critical thinking and follows a process of conducting tests for normality, paired-samples t-test, factor analysis and regression analysis. Testing for normality is explored first; normality tests were run using Kolmogorov-Smirnov tests in order to test the normality of

the distribution of scores. Table A1.4 in Appendix A1 reveals that in all cases the significance factor is less than 5% which indicates that the scores are not normally distributed and therefore an assumption has to be made that the scores are normally distributed in order for paired sample t-tests to be conducted.

5.5.2.1 Relationship between perceived critical thinking skills at beginning of students' studies and current perceived critical thinking skills

The null hypothesis under investigation states that there is no difference between the students' perceived critical thinking skills at the start of their studies and their current perceived critical thinking skills. Since the question involves finding out the perceived critical thinking skills for the same students before and after their participation in academic activities, this requires paired-samples t-test. Despite the fact that the Kolmogorov-Smirnov test indicates that the distribution is not normally distributed, an assumption is made that the scores are normally distributed and paired sample t-tests are conducted. The results from paired-samples t-test show that mean and standard deviation of students' critical thinking scores from the time they started their studies and their current critical thinking scores at university are ($\bar{x} = 3.33$ *and* $SD = 1.003$) and ($\bar{x} = 4.69$ *and* $SD = 0.77$), t (856) = -38.903, p <0.05 (two-tailed) as the p-value is less than 5%. The conclusion is therefore that there is a statistically significant difference between perceived critical thinking of students at the start of their studies at university and their perceived critical thinking skills at the time that they completed the questionnaire. When measuring the mean increase in critical thinking one first has to observe what the mean was at the time the student started studying at university and the score obtained at the time that the questionnaire was completed. In the case of critical thinking the mean at the start of the time the student started studying at university was 3.33 and the mean at the time that the questionnaire was completed was 4.69 which indicates the mean increase in critical thinking scores as 1.36. The mean increase of 1.36 therefore represents the difference in the mean scores between the time the student started studying at university and the score obtained at the time that the questionnaire was completed. It also reveals a 95% confidence interval ranging from -1.426 to -1.289 as revealed in Tables A2.1, A2.2 and A2.3 in Appendix A2. This means that if the same study is conducted on a different sample students there would be a 95% chance that similar results would be obtained.

Therefore this indicates that there is a statistically significant increase in students' perceived critical thinking skills.

The ability to think critically requires certain skills such as those involving an ability to be clear and effective when writing as well as an ability to read and comprehend academic material (Pascarella and Terenzini, 1991; Anderson and Krathwohl, 2001; Forehand, 2010). Paired-samples t-tests were done to assess if there was a difference between students' ability to be clear and effective when writing and their ability to read and comprehend material from the time they started university and at the time that the questionnaire was completed.

The results reveal that there is a statistically significant increase in ability to be clear and effective when writing from the time students started their studies at university (M = 3.46, SD = 1.089) to their current ability to be clear and effective when writing scores (M =4.52, SD =.893), t (854) = -29.097, p <. 0.05 (two - tailed). The mean increase in ability to be clear and effective when writing scores was 1.06 with a 95% confidence interval ranging from -1.129 to .987. The mean increase of 1.06 represents the difference in the mean scores between the time the student started studying at university and the score obtained at the time that the questionnaire was completed.

It was also found that there is a statistically significant increase in ability to read and comprehend academic material from the time they started their studies at university (M = 3.40, SD = 1.104) to their current ability to read and comprehend academic material scores (M = 4.64, SD = .842), t (855) = -32.631, p <. 0.05 (two - tailed). The mean increase in ability to read and comprehend academic material scores was 1.24 with a 95% confidence interval ranging from -1.315 to -1.166. The mean increase of 1.24 represents the difference in the mean scores between the time the student started studying at university and the score obtained at the time that the questionnaire was completed.

The results of the analysis therefore reveal that the Null hypothesis stating that the students' perceived critical thinking skills at the start of their studies and their current perceived current critical thinking skills remain the same is therefore rejected. The next section explores correlation testing.

5.5.2.2 The relationship between variables involving critical thinking

In order to describe the relationship between variables, correlation testing has to be performed. The analysis for relationship between variables was investigated using the Spearman Rho Rank Order Correlation because this technique is considered best when using ordinal or ranked data. The purpose of correlation testing is to determine the strength of the relationship and the direction of the relationship. Correlation is used to determine how strongly pairs of variables are related and in this regard the correlation could be weak, moderate or strong. According to Pallant the size of the value of the correlation coefficient can range from –1.00 to 1.00 where a correlation of 0 indicates no relationship, a correlation of 1.0 indicates a perfect positive correlation, and a value of –1.0 indicates a perfect negative correlation (Pallant, 2011, p. 134). When it comes to interpreting the values between 0 and 1 different authors suggest different interpretations and according to Cohen values between 0.10 to 0.29 suggest weak correlation, values between r= 0.30 to 0.49 suggest moderate correlations and values between r= 0.50 to 1.0 suggest strong correlations (Cohen, 1988, pp. 79–81).

Furthermore a direction of the relationship between the variables exists and in this respect the correlation between variables can be either positive or negative. In a situation where there is a negative sign in front of the correlation coefficient value it means there is a negative correlation between the two variables which means that if there is a high score on one variable there will be low score on the other variable. (Pallant, 2011, p.133)

Table 5.2 reveals the results of the correlation analysis indicating that there is a weak, positive correlation between variables such as contributing to a class discussion and introducing ideas or concepts from different courses during class discussion and breaking down and judging information. The results of the other variables that also reveal weak, positive correlation can be found in Table 2.4 in Appendix A2.

Correlation testing reveals that there is a moderate, positive correlation between fieldwork and research; and interaction with lecturers, $r = 0.387$, $n = 845$, $p < 0.01$. There is also a moderate, positive correlation between perceived critical thinking at the beginning of student's studies and current perceived critical thinking, $r = 0.361$, $n = 850$, $p < 0.01$.

Correlation testing also reveals that there is a strong, positive correlation between contributing to a class discussion and introducing ideas or concepts from different courses during class discussion and interaction with lecturers, r = 0.521, n =842, p <0.01.

Table 5.2 Correlations for critical thinking

	A	B	C	D	E	F
A	1					
B	.241**	1				
C	.281**	.174**	1			
D	.521**	.206**	.387**	1		
E	.073*	-0.004	-0.048	-0.067	1	
F	.261**	.186**	.146**	.253**	.361**	1

**. Correlation is significant at the 0.01 level (2-tailed)
*. Correlation is significant at the 0.05 level (2-tailed).

A= Contributing to a class discussion

B= Breaking down and judging information

C= Fieldwork and research

D= Interaction with lecturers

E= Perceived critical thinking at the beginning of student's studies

F= Current perceived critical thinking

5.5.2.3 The structure of the variables in the study

After describing the relationship between variables it is important to determine the underlying structure of the variables in the study and this involves factor analysis whereby a large number of variables are reduced into a small number which is manageable and allows inclusion in the facilitation of testing a theory (Creswell, 2013, p. 174).

In the theoretical framework, the activities that may contribute to critical thinking have been outlined and these include the amount of time students spend engaged in academic activities such as attending lectures, student's participation in classroom discussions, whether students interact

with academic staff and how proficient students regard themselves in having developed certain critical skills at university. Each of these activities has been tied to questions in the questionnaire. In this part of the analysis process it will be determined how these variables fit together. The 20 items of the critical thinking indicator were subjected to principal components analysis (PCA) using SPSS version 21. Principal components analysis reveals the presence of seven components with eigenvalues exceeding 1, explaining 23.67%, 13.34%, 7.82% , 6.61%, 6.15%, 5.59% and 5.05% of the variance respectively, as shown in Table A2.5 in Appendix A2.

The PCA starts with Kaiser's criterion to check if it is possible to apply factor analysis. Further, it uses the eigenvalues rule to determine whereby only factors with eigenvalues of 1 or more are retained for further analysis. Table A2.6 in Appendix A2 reveals that the Kaiser-Meyer-Olkin value is 0.77 which exceeds the recommended value of 0.6 (Kaiser 1970, 1974). Bartlett's Test of Sphericity also shows statistical significance.

The analysis process thus far has identified the relationship between variables using correlation testing, and determining the quantity of factors. The next step involves interpretation of the factors and requires the rotation of factors. Interpretation of the factors also requires understanding the content of the variables in order to label the factors that are grouped together. Table 5.3 .identifies seven components from the factor analysis and the grouping and labeling of the factors is discussed next.

The factors are grouped and labeled in this section and brief labels are used for the components in order to facilitate discussion. The first component involves student interaction with lecturers and is labeled as "interaction with lecturers". The second component involves critical thinking skills at the beginning of the student's studies at UCT and is labeled as "Critical thinking at the beginning of the student's studies" The third component involves student interaction in class whereby they contribute to class discussions and introducing ideas or concepts from different courses during class discussion and is labeled as "class discussion". The fourth component looks at current perceived critical thinking skills and is labeled "current critical thinking". The labeling for the fourth component is done with the understanding that it is still the students' perception of their critical thinking skills at the time that they reported the scores. The fifth

component involves the students' ability to break down material into component parts or arguments into assumptions to see the basis for different outcomes or conclusions and the students' ability to judge the value of information, ideas, actions, and conclusions based on the soundness of sources, methods and reasoning", which according to Bloom's taxonomy in the literature review is referred to as analysis and evaluation. This component will therefore be referred to as "academic analysis and evaluation" The sixth component involves academic activities such as doing fieldwork, practical, internships, as part of academic work and taking a small research-oriented seminar with a lecturer and is labeled as "practicals and research". The seventh component involves out-of-class and other academic activities such as attending lectures, tutorials, discussions, workshops, practicals, tutoring or mentoring, studying and other academic activities outside of class and is labeled "in- and out-of class academic activities. The components identified in the preceding section are then used in the multiple regression that is discussed after the following section dealing with interaction between variables that affected students' perceived critical thinking.

Table 5.3 Rotated component matrix for critical thinking

	Component						
	1	2	3	4	5	6	7
Sought academic help from a lecturer when needed	.826						
Communicated with a lecturer by email or in person	.824						
Talked with the lecturer outside of class about issues and concepts derived from a course	.823						
Interacted with a lecturer during lecture or class sessions	.657		.553				
Worked with a lecturer on a research or creative activity other than course work	.487					.477	
Ability to be clear and effective when writing –Beginning		.825					
Analytical and critical thinking skills –Beginning		.798					
Ability to read and comprehend academic material –Beginning		.794					
Contributed to a class discussion			.892				
Brought up ideas or concepts from different courses during class discussion			.844				
Ability to be clear and effective when writing –Current				.789			
Ability to read and comprehend academic material –Current				.766			
Analytical and critical thinking skills –Current				.734			
Break down material into component parts or arguments into assumptions to see the basis for different outcomes or conclusions					.889		
Judge the value of information, ideas, actions, and conclusions based on the soundness of sources, methods and reasoning					.848		
Doing fieldwork, practica, internships, as part of academic work						.712	
Taken a small research-oriented seminar with a lecturer						.645	
Studying and other academic activities outside of class							.734
Attending lectures, tutorials, discussions, workshops, practicals							.630
Tutoring or mentoring						.427	.586

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a] a. Rotation converged in 7 iterations.

5.5.3 Interaction between variables that affected students' perceived critical thinking skills

The following section explores the interaction between the variables involving critical thinking testing using Eta. Eta indicates a value of 0.169 revealing that there is significant association between perceived critical thinking ability at the beginning of students' studies and current perceived critical thinking ability. Students' perceived critical thinking skills at the beginning of the students' studies therefore have a significant impact on their current perceived critical thinking skills, although the significance is weak. This is most interesting as it indicates that students' academic background during their pre-university years plays an important role in their ability to further improve their critical thinking skills at university. The interaction with all other variables such as faculty, academic year, gender, population group or nationality does not have a significant association with perceived critical thinking as shown in Table A2.7 in Appendix A2. The following section looks at the analysis that was done for the democracy variable.

5.5.4 Student activities that contribute to critical thinking

The last stage in the analysis of the critical thinking variable involves regression analysis and in this section simultaneous and multiple regression analyses are conducted. The purpose of regression analysis is to determine which of the components identified during the factor analysis contributes to critical thinking. Multiple regression is a technique whereby the dependent variable (DV) is expressed as function of a group of independent variables (IV) or predictors (Pallant, 2011, p. 122).

The elements of a multiple regression equation consist of the following:

$$Y= b_1X_1 + b_2X_2 + b_3X_3+ b_0$$

In the equation Y is the value of the dependent variable (DV) that is being predicted and in the context of this study the dependent variable is current critical thinking. The other elements in the equation consist of b_1 which is the Beta coefficient for X_1 whereby X_1 is the first independent variable (IV). This variable explains the variance in Y. In a similar manner b_2 is the Beta coefficient for X_2 and X_2 would be the second independent variable that explains the variance in Y. For any further independent variables added to the equation the same procedure would apply

and in the case of the given equation b_3 is the Beta coefficient for X_3 and X_3 is the third independent variable that is explaining the variance in Y. Lastly, b_0 is referred to as the constant in the equation (Friedrich, 1982, p.797).

In the context of this study, the DV is current critical thinking and the predictors or group of independent variables are interaction with lecturers, critical thinking at the beginning of student's studies, class discussion, academic analysis and evaluation, practicals and research; and in- and out-of-class academic activities. The multiple regression seeks to find out what the relative contribution of each individual variable is for critical thinking in the model. Two approaches of multiple regressions are applied throughout this study, i.e. simultaneous or standard regression and stepwise regression.

Simultaneous regression is the process used for critical thinking whereby all independent variables are entered into the regression at the same time in order to evaluate how critical thinking skills at the beginning of the students' studies; interaction with lecturers; academic analysis and evaluation, class discussion, practicals and research; and in- and-out-of-class academic activities are related to current perceived critical thinking skills (Pallant, 2011, pp. 149-150).

The results of the analysis reveal that these variables are significantly related to perceived current critical thinking $F(5.814) = 53.089$; $p<0.05$.The multiple correlation coefficient is 0.496, indicating that approximately 24.1% of the variance of perceived current critical thinking can be accounted for by the combination of critical thinking skills at the beginning of the students' studies; interaction with lecturers; academic analysis and evaluation and class discussion. The regression equation for predicting current critical thinking skills is therefore:

Current critical thinking= 0.295 x Critical Thinking at the beginning of studies + 0.101 x Interaction with lecturers + 0.052 x Class discussion + 0.074 x Academic analysis and evaluation + 2.808

The above equation indicates that critical thinking at the beginning of the student's studies, their interaction with lecturers, their participation in class discussion and their involvement in academic activities that encourage analysis and evaluation contribute to the student's current critical thinking skills. The Model Summary, ANOVA and Coefficients tables that contain the information that was used during the standard regression analysis are contained in Tables A3.1, A3.2 and A3.3 in Appendix A3

The stepwise regression method is used for critical thinking and the independent variables for critical thinking are entered into the SPSS program, resulting in a regression output which provides a model and the relative contribution of the individual variables (Pallant, 2011, p. 149-150). The stepwise method is used to identify which component contributed most to students' perceived critical thinking skills and reveals interesting findings as shown in the following results.

Critical thinking at the beginning of studies is entered into the regression equation at step 1 of the analysis and it is significantly related to predict current critical thinking ability F (1,801) = 140.48, p=0.000 <0.01. The fact that critical thinking skills at the beginning of the students' studies contribute significantly to current critical thinking skills is in agreement with similar claims made by scholars such as Norris (1985), Anderson and Krathwohl (2001), Pike and Kuh (2006), and Forehand (2010), that will be discussed in more detail in the following chapter dealing with the discussion of the results. The multiple correlation coefficient is 0.386. According to Pallant, the adjusted R square statistic provides a more accurate estimate of the population value and for this reason the adjusted R square statistic was used (Pallant, 2011, p.161)

This indicates about 14.8% of the variance of the current critical thinking at the beginning of studies can be accounted for by critical thinking scores at the beginning of students' studies. Therefore, the regression equation for predicting current critical thinking is:

Current critical thinking = 0.294 x Critical thinking at the beginning of studies + 3.622

Interaction with lecturers has been identified in the literature as important in developing critical thinking skills (Astin, 1997; Tinto, 1997; Levis-Fitzgerald et al., 2003). This has been confirmed in the results of the regression when critical thinking at the beginning of studies and interaction with lecturers are entered into the regression equation at step 2 of the analysis and it is found that they are significantly related to predict current critical thinking F (2,800) = 107.453, p=0.000 <0.01. The multiple correlation coefficient is 0.460. This indicates about 21% of the variance of current critical thinking ability can be accounted for by critical thinking ability at the beginning of students' studies and interaction with lecturer scores. The regression equation for predicting current critical thinking is:

Current critical thinking = 0.300 x Critical thinking at the beginning of studies + 0.152 x Interaction with lecturers + 3.200

The abilities to break down and judge information, which are labeled academic analysis and evaluation are regarded as essential to critical thinking (Pascarella and Terenzini, 1991; Anderson and Krathwohl, 2001; Forehand, 2010) and at step 3 of the analysis critical thinking at the beginning of studies; interaction with lecturers; and academic analysis and evaluation are entered into the regression equation. The results show that they are significantly related to predict current critical thinking F (3,799) = 81,884, p=0.000 <0.01. The multiple correlation coefficient is 0.485. This indicates about 23.2% of the variance of the current critical thinking at the beginning of studies can be accounted for by critical thinking at the beginning of students' studies; interaction with lecturer scores; Academic analysis and evaluation

The regression equation for predicting current critical thinking is:

Current critical thinking = 0.301 x Critical thinking at the beginning of studies + 0.132 x Interaction with lecturers + 0.089 x Academic analysis and evaluation+ 2.866.

Astin (1997), and Tinto (1997), have found that having students contribute to class discussion may be a contributing factor to students becoming active participants in the educational process and thereby contributing to the development of critical thinking skills. At step 4 of the analysis critical thinking at the beginning of studies; interaction with lecturers; academic analysis and

evaluation and class discussion are entered into the regression equation and are significantly related to predict current critical F (4,798) = 64.227, p=0.000 <0.01. The multiple correlation coefficient is 0.493. This indicates about 24% of the variance of the current critical thinking could be accounted for by critical thinking at the beginning of students' studies; interaction with lecturers; academic analysis and evaluation and class discussion. The regression equation for predicting current critical thinking is:

Current critical thinking = 0.294 x Critical thinking at the beginning of studies + 0.099 x Interaction with lecturers + 0.079 x Academic analysis and evaluation + 0.053 x Class discussion + 2.844

The results of the stepwise regression show that students' critical thinking at the beginning of their studies contributes the most to current perceived critical thinking, followed by student interaction with lecturers, academic analysis and evaluation and class discussion

The Model Summary, ANOVA, Coefficients and Excluded Variables tables that contain the information used during the stepwise regression analysis for critical thinking are found in Tables A3.4, A3.5 and A3.6 in Appendix A3. The next chapter discusses the finding of the analysis and also shows the connection between the findings and the literature that has been reviewed. The following section looks at the analysis that was done for support for democracy.

5.6 Democracy

The analysis for the democracy variable is different to the analysis involving critical thinking since the analysis involving student attitudes towards democracy focuses on two key aspects concerning democracy. The first focuses on students' understanding of democracy. The second focuses on the effect of student activities on student attitudes towards democracy that is discussed later in this section. The following section explores students' understanding of democracy.

5.6.1 Students' understanding of democracy

In the questionnaire students were given one opportunity to provide a definition of democracy in their own words. Figure 5.7 reveals that out of the sample of 861 respondents, 87% provided a valid definition of democracy as against 13% who either skipped the question or provided an invalid definition. Students' definitions were reviewed and coded in terms of the following three categories:

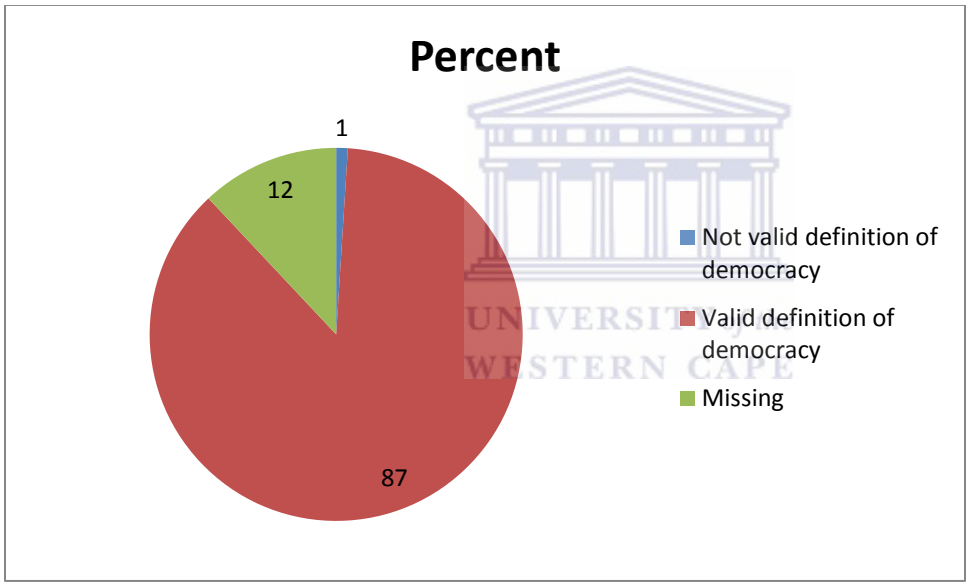
(1) Valid/ Invalid

(2) Positive/ Negative/ Neutral

(3) Substantive meaning of definitions in terms of key notions.

.

Figure 5.7 Definitions of Democracy



Missing= 103

The responses range according to various views of democracy that are categorized into positive, neutral and negative meanings. The positive meanings consist of definitions encompassing political rights and civil freedoms (43.9%), popular participation and deliberation (28.8%), equality, fairness and justice (11.7%), good governance (0.2%), and socio-economic development (0.2%).

This is summarized in Table 5.4 which shows that the largest proportion of students (43.9%) view democracy in terms of political rights and freedoms. These political rights and freedoms include "voting rights", "free and fair elections" and "majority rule". This is followed by popular participation and deliberation in decision-making over and above elections (28.8%) encompassing definitions such as "people's power", "government by the people for the people" and "representation". This is followed by equality, fairness and justice (11.7%), good governance (0.2%) such as people-centred government and rule of law; as well as socio-economic development (0.2%) such as the provision of employment and basic necessities. Neutral meanings such as democracy being "a form of government" constitute 1.1% and negative meanings such as democracy being "an authoritative regime" constitute 1.4%. The respondents who claim that they don't know or couldn't provide an answer represent 0.1%. This is in agreement with what Heywood (1992), and Dalton et al., (2007), claim regarding ways how democracy can be measured, which is discussed in more detail in the following chapter which deals with the discussion of the findings.

Table 5.4 Students' understanding of democracy

	Frequency	Valid Percent
Political rights and civil freedoms	378	43.9
Popular participation and deliberation	248	28.8
Equality, fairness and justice	100	11.7
Good Governance	2	.2
Socio-economic Development	2	.2
Other positive meanings	5	.5
Neutral meanings	10	1.1
Negative meanings	12	1.4
Don't know, No Answer	1	.1
Missing	103	12
Total	861	100.0

The results of the analysis reveal that 87% of students have a good understanding of what democracy involves since they have the ability to conceptualise democracy correctly by

displaying an ability to differentiate democracy from non-democratic forms of government. They can also identify the key features of democracy, which include free and fair elections and voting rights. The analysis also reveals that most students identify democracy as a form of government whereby the people of a country enjoy various freedoms which include having a say in making decisions for the country through their voting rights, that people within a democracy enjoy freedom to join political groups of their choice and that they have the freedom to participate in open debate and discussions. Students' understanding of democracy is used in later analysis to show students' attitudes towards democracy. The following section looks at the analysis involving student support for democracy

5.6.2 Student support for democracy

The dependent variable for this study involves student support for democracy. In this instance support for democracy is measured using a variable that consists of students' understanding and perceptions of democracy as well as students' actual support for democracy. This is different to the dependent variable used in other studies of this kind such as those done by HERANA where the dependent variable consisted of questions involving rejection of presidential rule, rejection of military rule, rejection of one party rule and a question dealing with preference for democracy (Mattes and Luescher-Mamashela, 2012, p. 155).

Here support for democracy assesses both students' preference for democracy and students' knowledge of democratic processes. The dependent variable was therefore constructed of questions related to understanding the Constitution, the Bill of Rights, and the values enshrined in both; knowing and understanding the structure of government, political processes, political concepts and issues, participation in democratic processes and students' preference for democracy.

The construction of the latent dependent variable in this study involved recoding of the variables into 5-item scales, then recoding the relevant questions into dummy variables and thereafter the latent variable was constructed which is referred to as "Knowledge and Support of Democracy" since it involves students' understanding of democracy and democratic processes as well as student support for democracy. Individuals who score high in these areas could be referred to as "Knowledgeable Democrats". The processes and reasons for constructing the new dependent

variable are discussed in more detail in the section dealing with factor analysis while the following section explores student interaction with democracy.

5.6.3 Student involvement in activities that support democracy

The following section explores the results of the bivariate analysis investigating how students participate in activities that support democracy. The bivariate analysis reveals that most students were not involved in activities that support democracy, but most students indicated that they would participate if they were given a chance. This is fascinating as it indicates that, although students may not have been involved in these activities in the past, the fact that they indicated that they would participate if they were given an opportunity to do so, speaks to a positive attitude toward supporting democracy. The types of activities that are examined include student attendance of political meetings and demonstrations, writing letters, participating in demonstrations, and voting. It was found that most students never attended a political meeting on campus, but at the same time a large proportion of students indicated that they probably would if they had a chance (39%, representing 339 out of n= 859), as shown in Table B1.1 in Appendix B1. Similarly, Table B1.2 in Appendix B1 reveals that most students never contacted a senior university official (e.g. Vice-Chancellor) to raise an important issue or submit a complaint, but that most students indicated they would do so if they were given a chance (65%, representing 561 out of n= 857). The largest proportion of the participants indicated that they voted in the last general election (37%, representing 315 out of n=855) as revealed in Table B1.3 in Appendix B1.

Table B1.4 in Appendix B1 reveals that most students indicated not serving on governing bodies (84%, representing 713 out of n=848). Similarly, most students were not members of political parties (90%, representing 769 out of n=851) as shown in Table B1.5 in Appendix B1.The following section explores the multivariate analysis that was done for the democracy variable.

5.6.4 Determining student support of democracy

Multivariate analysis concerning student support for democracy follows a similar procedure as that for the critical thinking variable which involves testing for Normality, Correlation, Factor analysis and Regression analysis.

Normality tests using Kolmogorov-Smirnov tests reveal that in all cases the significance factor is less than 5% which indicates that the distribution is not normal as shown in Table 5.7

Table 5.5 Normality test for support of democracy

	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
Student involvement in Political communing and participation	.112	620	.000
Spaces where students discuss politics	.083	620	.000
Perceptions of Democracy	.071	620	.000
Rejection of non-democratic alternatives	.316	620	.000
Student Involvement in Political Organisations	.427	620	.000
Voting	.238	620	.000
Democracy Definitions	.476	620	.000

a. Lilliefors Significance Correction

Factor analysis is then employed to identify the underlying structure of the variables pertaining to support for democracy and the technique that was used to decide which factors to retain in this study makes use of Kaiser's criterion whereby only factors with eigenvalues of 1 or more are retained for further analysis. Table B1.6 in Appendix B1 reveals the Kaiser-Meyer-Olkin value as 0.883. This exceeds the value of 0.6 (Kaiser 1970, 1974) which is recommended. Bartlett's Test of Sphericity (Bartlett, 1954) also reaches a level of statistical significance.

The 25 items of the support for democracy indicator are then subjected to principal components analysis (PCA) using SPSS version 21 which reveal the presence of seven components with eigenvalues exceeding 1, explaining 29.62%, 9.39%, 8.11%, 5.24%, 4.84%, 4.25% and 4.05% of the variance respectively. This is shown in Table B2.1 in Appendix B2

Once the quantity of factors has been determined, interpretation of the factors involving rotation of factors follows which requires understanding the content of the variables in order to label the factors that are grouped together (Pallant, 2011, p.184-185).

Table 5.8 reveals the seven factor components resulting from the factor analysis. The first component deals with student participation in activities such as communing, contacting and protesting. The second component involves discussion of politics within certain spaces; the third component involves rejection of non-democratic alternatives; the fourth component is a combination of knowing and understanding the Constitution, Bill of Rights, structure of government and political processes, political concepts, participating in democratic processes and preference for democracy. This is also the dependent variable in the study referred to as "Knowledge and support of democracy". The fifth component involves participation in political organisations, the sixth component involves a combination of voting and student participation in governing bodies while the last component involves defining democracy. The relationship between variables using correlation testing is discussed next.

Table 5.6 Rotated component matrix for support of democracy

	Component						
	1	2	3	4	5	6	7
Wrote a letter to a student paper/Varsity or make a pamphlet to protest about an issue	.764						
Joined others in a student demonstration or attended a protest march on campus	.745						
Contacted a senior university official (e.g. Vice-Chancellor) to raise an important issue or submit a complaint	.740						
Contacted a government official to raise an issue or make a complaint	.711						
Wrote a letter to a local/national newspaper about an issue	.696						
Joined others in a demonstration or protest march off campus	.692						
Attended a political gathering/meeting off campus	.680						
Attended a political meeting of students (e.g. a mass meeting) on campus	.545						
How often do you discuss political matters in any of the following places/spaces? On campus with friends		.853					
How often do you discuss political matters in any of the following places/spaces? Off-campus with friends		.834					
How often do you discuss political matters in any of the following places/spaces? At home with family		.760					
How often do you discuss political matters in any of the following places/spaces? In Social Media		.732					
How often do you discuss political matters in any of the following places/spaces? In the classroom		.701					
Reject Presidential Rule			.868				
Reject Military Rule			.848				
Reject One Party Rule			.804				
Understanding the Constitution, the Bill of Rights, and the values enshrined in both				.787			
Knowing and understanding the structure of government, political processes, political concepts and issues		.408		.732			
Participating in democratic processes				.721			
Prefer Democracy				.433			
Political (campus-based eg. ANC YL, DASO, SASCO, YCL)					.804		
Political organization (off-campus)					.721		
With regard to the last general election (local government election 2011), which statement is true for you?						.809	
Governing bodies						.431	
Valid definitions							.768

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 6 iterations.

The relationship between variables is tested using correlation testing whereby the Spearman Rho Rank Order Correlation was used and correlation testing reveals weak, positive correlation between variables such as student involvement in political communing and participation and student involvement in political organisations, and others as shown in Table B2.2 in Appendix B2. The variables that have weak, negative correlation are found in Table B2.3 in Appendix B2.

There is a moderate, negative correlation between variables such as student involvement in political communing, contacting and protesting; and knowledge and support of democracy $r = -0.384$, $n = 821$, $p < 0.01$.

There is a strong, positive correlation between frequency of political discussions and knowledge and support for democracy, $r = 0.537$, $n = 840$, $p < 0.01$. Similarly, it was found that there is a strong, negative correlation between student involvement in communing, contacting and protesting; and the frequency of political discussions, $r = -0.555$, $n = 824$, $p < 0.01$.

Table 5.7 Correlations for support of democracy

	A	B	C	D	E	F	G
A	1						
B	-.555**	1					
C	-.384**	.537**	1				
D	0.055	-.133**	-.118**	1			
E	.277**	-.207**	-.180**	-0.029	1		
F	.148**	-.145**	-.089**	.086*	0.021	1	
G	-0.016	-0.053	-0.026	0.039	0	0.019	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

A= Student involvement in communing, contacting and protesting

B= Frequency of political discussions

C= Knowledge and support of democracy

D= Rejection of non-democratic alternatives

E= Student Involvement in Political Organisations

F= Voting and involvement in Governing bodies

G= Democracy definitions

These findings suggest there is a strong correlation between the frequency of students discussing politics and at least two other variables. In the case of frequency of political discussions and knowledge and support for democracy it has a positive correlation which means that the more frequently students are involved in discussing politics the more their knowledge and support for democracy tends to increase. In the case of the correlation between student involvement in communing, contacting and protesting; and the frequency of political discussions it has a negative correlation which means that the more students are involved in discussing politics, the less they are involved in communing, contacting and protesting. The findings therefore reveal

that an increased frequency of political discussions leads to an increase in knowledge and support of democracy while an increased involvement in political communing, contacting and protesting may have the effect of decreasing students' knowledge and support of democracy. The following section looks at interaction between variables that affect student attitudes towards democracy.

5.6.5 Interaction between variables that affect student attitudes towards democracy

Testing was done using Eta to look at the interaction between variables that affect students' support of democracy and indicates a value of 0.177 which reveals that there is a significant association between discussing politics and knowledge and support of democracy. Frequency of political discussions has a significant impact on students' knowledge and support of democracy (even though the significance is weak). The interaction with all other variables such as faculty, academic year, gender, population group or nationality does not have a significant association with knowledge and support of democracy as shown in Table B 2.4 in Appendix B2 and using these as control variables would not indicate any significant changes in the findings of the analysis. The following section explores the analysis involving the diversity variable.

5.6.6. Student activities that contribute to Knowledge and Support of Democracy

Analysis for student support for democracy is performed using multiple regressions. In the context of support for democracy, the dependent variable is Knowledge and support of democracy. The Knowledge and support of democracy variable is a combination of knowing and understanding the Constitution, Bill of Rights, structure of government and political processes, political concepts, participating in democratic processes and preference for democracy. The predictors or group of independent variables are frequency of political discussions, student involvement in communing, contacting and protesting**;** rejection of non-democratic alternatives; participation in political organisations; participation in voting and governing bodies; and the ability to define democracy. The multiple regression seeks to find out what the relative contribution of each individual variable to support for democracy is in the model. As stated above two approaches of multiple regressions are applied in this study. These include simultaneous or standard regression and stepwise regression.

The analysis for support of democracy uses standard regression whereby all independent variables are entered into the regression at the same time (Pallant, 2011, p.149-150). In order to evaluate frequency of political discussions and student involvement in communing, contacting and protesting**,** rejection of non-democratic alternatives, participation in political organisations, participation in voting and governing bodies, and the ability to define democracy are related to knowledge and support of democracy a simultaneous regression is performed. Frequency of political discussions and student involvement in communing, contacting and protesting are significantly related to knowledge and support of democracy F (6. 684) = 53.854; p=0.000<0.05. The multiple correlation coefficient is 0.566, indicating that approximately 31.5% of the variance of knowledge and support of democracy can be accounted for by the combination of frequency of political discussions, and student involvement in communing, contacting and protesting. The remainder of the variables, i.e., rejection of non-democratic alternatives; student involvement in political organisations; voting and participation in governing bodies and democracy definitions as identified in Table B.3.3 are not significant. The regression equation for knowledge and support of democracy is therefore:

Knowledge and support of democracy = - 0.275 x Student involvement in communing, contacting and protesting + 0.409 x Frequency of political discussions + 4.275

The Model Summary, Analysis of Variance (ANOVA) and Coefficients tables that contain the information that was used during the standard regression analysis are contained in Tables B3.1, B3.2 and B3.3 in Appendix A3.

A stepwise regression is done for the knowledge and support of democracy variable to evaluate whether frequency of political discussions; student involvement in communing; contacting and protesting are necessary to predict knowledge and support of democracy.

Mattes and Bratton have found that one of the things that is preventing from being committed to democracy is the fact that they are not engaged in politics and generally do not possess a great deal of political information. They hold the view that the problem of people not possessing

political information is something that may be overcome by having people gain access to media and education (2007, p.204). Political information can be obtained in a variety of ways and these include exposing students to media and by having students engage in political discussions. Students discussing politics may lead to more support for democracy and at step 1 of the analysis frequency of political discussions is entered into the regression equation and is significantly related to predict knowledge and support for democracy $F(1,777) = 338.555$, $p=0.000 <0.01$. The multiple correlation coefficient is 0.551. This indicates approximately 30.3% of the variance of the knowledge and support of democracy can be accounted for by frequency of political discussions. The regression equation for predicting understanding of and preference for democracy is:

Knowledge and support of democracy = 0.386 x Frequency of political discussions + 2.326

Another factor that may contribute to support for democracy involves student participation in activities that support democracy and at step 2 of the analysis frequency of political discussions and student involvement in communing, contacting and protesting are entered into the regression equation and is significantly related to predict knowledge and support of democracy $F(2,776) = 181.273$, $p=0.000 <0.01$. The multiple correlation coefficient is 0.564. This indicates approximately 31.7% of the variance of the knowledge and support for democracy can be accounted for by frequency of political discussions and student involvement in communing, contacting and protesting communing and participation in activities that support democracy. The regression equation for predicting understanding of and preference for democracy is:

Knowledge and support of democracy = 0.328 x Frequency of political discussions- 0.231 x Student involvement in communing, contacting and protesting + 3.48

The results of the regression are therefore similar to the results of the correlation testing since an increased frequency of political discussions contributes to an increase in knowledge and support of democracy while an increased involvement in communing, contacting and protesting may have the effect of decreasing student's knowledge and support of democracy. The variables that contribute significantly to knowledge and support of democracy will be discussed in more detail

in the following chapter dealing with the discussion of the findings. The Model Summary, ANOVA, Coefficients and Excluded Variables tables that contain the information that was used during the stepwise regression analysis are contained in Tables B 3.4, B 3.5 and B 3.6 in Appendix B3. The following section looks at the analysis involving appreciation of diversity.

5.7 Diversity

The diversity variable looks at how students engage with people who come from a background that is different to theirs. This variable is measured by looking at how frequently students interact with diverse others. Diversity skills are evaluated by using students' self-reported proficiency scores. A set of questions measures how students rate themselves in appreciating, tolerating and understanding diversity as well as their proficiency in local and foreign language skills. The analysis for appreciation of diversity follows a similar procedure as that for critical thinking and democracy, starting with bivariate analysis and followed by multivariate analysis that includes testing for normality, paired-samples t-test, factor analysis and regression analysis.

The first part of analysis for the diversity variable involves cross tabulations which examines student interaction with diversity. On the one hand this involves looking at interaction with diverse others, and on the other hand it involves looking at involvement in organisations that encourage diversity interaction. As mentioned previously, a positive attitude towards diversity in this study does not necessarily arise from actual student interaction with diverse others, but simply means that students appreciate diversity. An appreciation of diversity, which is the dependent variable in this study, therefore involves a positive attitude towards diversity in general as well as a willingness to interact with diverse others. The following section explores the results of the bivariate analysis involving student interaction with diversity.

5.7.1 Student interaction with diversity

Cross tabulation results reveal that interaction with diverse others varies depending on certain factors. The analysis involving the diversity variable looks at various kinds of interaction that students are involved in such as interacting with people from a different race, nationality, sexual

orientation and even students who may have a different health status or disability. For example, it was found that 73% (representing 629 out of n=859) of the participants in the survey often interact with people who are of a different race or ethnicity than their own as shown in Table C1.1 in Appendix C1.

It was found that 47% (representing 402 out of n=857) of the students who participated in the survey often interact with people who are of a different sexual orientation than their own. This is revealed in Table C 1.2 in Appendix C1.

The analysis reveals that 66% (representing 569 out of n=858) of the students participating in the survey indicate that they often interact with people who are of a different economic or social class than their own as shown in Table C 1.3 in Appendix C 1.

Table C1.4 in Appendix C1 reveals that most of the students are not members of special interest, social and wellness groups (69%, representing 589 out of n= 851).

The survey also contains questions that require participants to rate their own appreciation of diversity when they started their studies at university and at the time that they completed the questionnaire. The usage of self-reported scores in the survey allows for deeper analysis to find out which categories of participants think that their ability to appreciate diversity has improved significantly. This analysis involves calculating the difference in the participants' self-reported scores between the time they started their studies and the time that they completed the survey.

The results of that analysis reveal that the longer students spend time studying at university, the more their interaction with diverse others improves. Table C1.5 in Appendix C 1 reveals that students in their fourth year and above, for example, indicate an improvement of two scale points to a percentage of 34.8%.

Most students also indicate that they interact with diverse others, but that this interaction occurs mostly when the differences are observable such as is the case with race and economic class. In the cases where the differences are sometimes less observable such as sexual orientation and

health status, students did not indicate that they interact often with these groups of people as shown by the 47% in Table C1.2. The following section looks at the Multivariate analysis involving appreciation of diversity.

5.7.2 Determining students' appreciation of diversity

Multivariate analysis for appreciation of diversity involves testing for normality, paired-samples t-test, factor analysis and regression analysis.

Normality tests are run using Kolmogorov-Smirnov tests for the appreciation of diversity variable and the significance factor indicates a p-value of 0.00 which reveals that the distribution is not normal.

Table 5.8 Normality test for appreciation of diversity

	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
Interaction with Diverse Others	.043	815	.001
Appreciation of Diversity	.089	815	.000
Diversity of Health and Disability	.197	815	.000
Student involvement in Diversity Organisations	.312	815	.000

a. Lilliefors Significance Correction

5.7.2.1 Relationship between appreciation of diversity at beginning of student's studies and current appreciation of diversity

The Null Hypothesis under investigation states that students' appreciation of diversity at the start of their studies and their current appreciation of diversity remain the same. Tests for normality involving the Kolmogorov-Smirnov test indicate that the variables are not normally distributed. In order to test this hypothesis, an assumption of normality in the distribution of scores is made and paired samples t-tests are conducted. The results from paired-samples t-test show that there is a statistically significant increase in diversity appreciation scores from the time they started their studies at university (M = 4.06, SD = 1.245) to their current appreciation of diversity (M =

4.99, *SD* =0.937), *t* (856) = -23.418-, *p* <. 0005 (two-tailed). The mean increase in appreciation of diversity scores are 0.93 with a 95% confidence interval ranging from -1.006 to -0.850. A paired-samples t-test is also conducted to evaluate the impact of student participation in activities at university on students' scores on their appreciation of global diversity. There is a statistically significant increase in diversity appreciation scores from the time they started their studies at university (*M* = 4.07, *SD* = 1.164) to their current appreciation of global diversity (*M* = 4.77, *SD* =0. 982), *t* (851) = -19.900, *p* <. 0005 (two-tailed). The mean increase in global diversity appreciation scores is 0.7 with a 95% confidence interval ranging from -0.773 to -0.634.Tables C2.1, C2.2 and C2.3 in Appendix C2 reveal the results of the paired sample t-tests.

Therefore the Null hypothesis stating that students' appreciation of diversity at the start of their studies and their current appreciation of diversity remain the same is therefore rejected.

5.7.2.2 Relationship between variables involving appreciation of diversity

The relationship between variables involving appreciation of diversity is tested using Correlation testing whereby the Spearman Rho Rank Order Correlation is employed. Questions 1.7, 3.7 and 7.3 were used in the analysis for appreciation of and interaction with diversity. This is revealed in the conceptual map in Appendix F. It was found that there is a weak, positive correlation between variables such as interaction with diverse others and appreciation of diversity and others as shown in Table C2.4 in Appendix C2. It was also found that there is a weak, negative correlation between variables such as interaction with diverse others and student involvement in organisations that encourage diversity. The results of the correlation are surprising as it implies that increased student involvement in organisations that encourage diversity may result in decreased interaction with diverse others. The other variables that have weak, negative correlation are found in Table C2.5 in Appendix C2.

It was also found that there is a moderate, positive correlation between appreciation of diversity and understanding of the English language, r= 0.323, n= 874, p <0.01

Table 5.9 Correlations for appreciation of diversity

	A	B	C	D	E	F	G
A	1						
B	.181**	1					
C	-0.008	.141**	1				
D	.419**	0.042	0.016	1			
E	.157**	.153**	.109**	.086*	1		
F	-0.026	.323**	.123**	-.073*	.075*	1	
G	-.092**	-.136**	-.087*	-.082*	0.028	-.127**	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

A= Interaction with Diverse Others

B= Appreciation of Diversity

C= Foreign language skills

D= Interaction with others who have a health or disability condition

E= South African language skills

F= English language skills

G= Student involvement in organisations that encourage diversity

The following section explores how the variables involving an appreciation of diversity are measured.

On the one hand the variables are measured by looking at students' self-reported scores for appreciation of diversity as identified in the items in questions 1.7.in the questionnaire in Appendix E. This is also indicated in the conceptual map in Appendix F. On the other hand, the variables are analysed by looking at student interaction with diverse others and student

involvement in organisations that may encourage interacting with diverse others as shown in questions 3.7 and 7.3 in the conceptual map in appendix F.

Principal components analysis reveals the presence of seven components with eigenvalues exceeding 1, explaining 20.10%, 14.62%, 8.91%, 7.86%, 6.19%, 5.89 % and 5.35%, of the variance respectively. This is shown in Table C2.6 in Appendix C2.

The next step in multivariate analysis involves factor analysis whereby a large amount of variables are reduced into a smaller, more manageable amount of variables in order to determine the underlying structure of the variables related to an appreciation of diversity in the study. The 21 items of the appreciation of diversity indicator are subjected to principal components analysis (PCA) using SPSS version 21 and Table C2.7 in Appendix C2 reveal that the Kaiser-Meyer-Olkin value is 0.700, exceeding the recommended value of .6 (Kaiser 1970, 1974) while Bartlett's Test of Sphericity (Bartlett 1954) reaches statistical significance.

The results of the factor analysis reveal that there are seven components resulting from the factor analysis as shown in Table 5.9. The first component involves student interaction with diverse others, the second component involves the ability to appreciate diversity, the third component involves foreign language skills, the fourth component involves South African language skills other than English, the fifth component involves interaction with students who have a health condition or disability, the sixth component involves the student's English language skills and the seventh component deals with student involvement in organisations that encourage diversity The following section looks at the results of the regression analysis involving students' appreciation of diversity.

Table 5.10.Rotated component matrix for appreciation of diversity

	Component						
	1	2	3	4	5	6	7
They were of a different race or ethnicity than your own	.824						
They were of a different nationality than your own	.778						
Their political opinions were very different from yours	.748						
Their religious beliefs were very different from yours	.726						
They were from a different economic or social class	.665						
Their sexual orientation was different than your own	.531				.473		
Ability to appreciate cultural and global diversity (e.g., ethnicity, nationality) –Beginning		.841					
Ability to appreciate, tolerate and understand diversity-Beginning		.820					
Ability to appreciate cultural and global diversity (e.g., ethnicity, nationality) –Current		.731					
Ability to appreciate, tolerate and understand diversity-Current		.711					
Foreign language skills –Current			.940				
Foreign language skills –Beginning			.935				
South African language skills other than English – Current				.928			
South African language skills other than English – Beginning				.899			
They had a health condition or HIV-status different from yours					.868		
They had a disability status different from yours					.836		
English language skills –Current						.859	
English language skills –Beginning						.858	
Non-political organization							.819
Special interest, social and wellness groups							.623
Religious organisation							

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a,] a. Rotation converged in 6 iterations.

5.7.3 Interaction between variables that affect students' appreciation of diversity

Testing using Eta indicates that interaction with variables such as faculty, academic year, gender, population group or nationality do not have a significant association with perceived appreciation of diversity. The faculty, academic year, gender, population group or nationality variables are regarded as control variables in the analysis process and their Eta values indicate that they do not have a significant association with perceived appreciation of diversity. This is shown in Table C2.8 in Appendix C3.The following section looks at the regression analysis that determines what student activities contribute to an appreciation of diversity.

5.7.4 Student activities that contribute to an appreciation of diversity

Multiple regression is performed to determine students' appreciation of diversity. In the context of students' diversity interaction, the dependent variable is appreciation of diversity and the predictors or group of independent variables are student interaction with diverse others, students' foreign language skills, interaction with others who have a health or disability condition, South African language skills, English language skills and student involvement in organisations that encourage diversity interaction. Factor analysis clumps students' language skills at the beginning of their studies and their language skills at the time that they completed the questionnaire together and does not take into account any improvement that may have occurred in students' language skills from the time that they started their studies until the time they completed the questionnaire. These latent variables generated through the factor analysis process involving South African language skills, English language skills and foreign language skills are used in the analysis involving multiple regression. The multiple regression seeks to find out what the relative contribution of each individual variable for appreciation of diversity is in the model. Two approaches of multiple regressions are applied in this study. These are simultaneous regression and stepwise regression.

The analysis for appreciation of diversity uses simultaneous regression whereby all independent variables are entered into the regression at the same time (Pallant, 2011, pp. 149-150). In order to evaluate how student interaction with diverse others, students' foreign language skills,

interaction with others who have a health or disability condition, South African language skills, English language skills and student involvement in organisations that encourage diversity interaction are related to an appreciation of diversity a simultaneous regression is done. Student interaction with diverse others, students' foreign language skills, South African language skills, English language skills and student involvement in organisations that encourage diversity are significantly related to an appreciation of diversity $F(6. 785) = 28.760$, $p< 0.05$. The multiple correlation coefficient is 0.425, indicating that approximately 17.4% of the variance of appreciation of diversity can be accounted for by the combination of student interaction with diverse others, students' foreign language skills, South African language skills, English language skills and student involvement in organisations that encourage diversity. The regression equation reveals that increased student involvement in organisations that encourage diversity interaction may have the effect of reducing appreciation of diversity. The regression equation for support of democracy is therefore:

Appreciation of diversity = 0.193 x Student interaction with diverse others + 0.064 x students' Foreign language skills + 0.056 x South African language skills + 0.265 x English language skills - 0.122 x Student involvement in organisations that encourage diversity interaction + 2.839

The Model Summary, ANOVA and Coefficients tables that contain the information used during the standard regression analysis are contained in Tables C3.1, C3.2 and C3.3 in Appendix C3

A stepwise multiple regression is conducted to evaluate whether student interaction with diverse others, students' foreign language skills, interaction with others who have a health or disability condition, South African language skills, English language skills and student involvement in organisations that encourage diversity are necessary to predict appreciation of diversity.

Starkey claims that language education generally plays an important role in student interaction with diversity and citizenship education (2002, p. 20). At step 1 of the analysis English language skills are entered into the regression equation and in Table C3.5 in Appendix C3 it was found that it is significantly related to predict appreciation of diversity $F (1,790) = 87.405$,

p=0.00<0.01. The multiple correlation coefficient is 0.316, indicating approximately 9.9% of the variance of the appreciation of diversity can be accounted for by English language. The regression equation for appreciation of diversity is:

Appreciation of diversity = 0.283 x English language skills + 3.305

At step 2 of the analysis English language skills and interaction with diverse others are entered into the regression equation and in Table C3.5 in Appendix C3 it was found that it is significantly related to predict appreciation of diversity F (2,789) = 71.586, p=0.000 <0.01. The multiple correlation coefficient is 0.392, indicating approximately 15.2% of the variance of the appreciation of diversity can be accounted for by English languages and interaction with diverse others. The regression equation for appreciation of diversity is:

Appreciation of diversity = 0.291 x English language skills + 0.196 x interaction with diverse others + 2.502

At step 3 of the analysis English language skills, interaction with diverse others and foreign language skills are entered into the regression equation and it was found that it is significantly related to predict appreciation of diversity F (3,788) = 51.642, p=0.000 <0.001. The multiple correlation coefficient is 0.405, indicating approximately 16.1% of the variance of the appreciation of diversity can be accounted for by English language skills, interaction with diverse others and foreign language skills. The regression equation for appreciation of diversity is:

Appreciation of diversity = 0.281 x English language skills + 0.197 x Interaction with diverse others + 0.070 x Foreign language skills + 2.398

At step 4 of the analysis English language skills, interaction with diverse others, Foreign language skills and involvement with organisations that encourage diversity interaction are entered into the regression equation and it was found that it is significantly related to predict appreciation of diversity F (4,787) = 40.725, p=0.000 <0.01. The multiple correlation coefficient

is 0.414, indicating approximately 16.7 % of the variance of the appreciation of diversity can be accounted for by English language skills, interaction with diverse others, foreign language skills and student involvement with organisations that encourage diversity interaction. The regression equation also reveals that although student involvement with organisations that encourage diversity interaction may contribute to an appreciation of diversity, an increase in student involvement with organisations that encourage diversity interaction may lead to a decrease in an appreciation of diversity. The regression equation for appreciation of diversity is therefore:

Appreciation of diversity = 0.272 x English language skills + 0.188 x Interaction with diverse others + 0.068 x Foreign language skills - 0.111 x Student involvement with organisations that encourage diversity interaction + 2.866

At step 5 of the analysis English languages skills, interaction with diverse others, foreign language skills, involvement with organisations that encourage diversity interaction and South African language skills are entered into the regression equation and it was found that it is significantly related to predict appreciation of diversity $F(5,786) = 34.173$, $p=0.00<0.01$. The multiple correlation coefficient is 0.423, indicating approximately 17.3 % of the variance of the appreciation of diversity can be accounted for by English language, interaction with diverse others, foreign languages, involvement with organisations that encourage diversity interaction and South African languages. The regression equation for appreciation of diversity is:

Appreciation of diversity = 0.267 x English language skills + 0.176 x Interaction with diverse others + 0.063 x foreign language skills - 0.120 x Student involvement with organisations that encourage diversity interaction + 0.056 x South African language skills + 2.824

An interesting result that emerges from the regression is the fact that English language skills, foreign language skills and South African language skills all contribute significantly to an appreciation of diversity. This is discussed in more detail in the chapter that deals with the discussion of the findings. Another interesting finding that emerges from the regression analysis is that an increased student involvement in organisations that encourage diversity interaction may have the effect of decreasing appreciation of diversity. This is also discussed in more detail in the

chapter dealing with the discussion of the findings. These are discussed in greater detail in the chapter dealing with the discussion of the findings. The Model Summary, ANOVA, Coefficients and Excluded Variables tables that contain the information that was used during the standard regression analysis are contained in Tables C3.4, C3.5 and C3.6 in Appendix C3.The following section discusses the analysis involving commitment to social responsibility and community development.

5.8 Commitment to social responsibility and community development

The variable involving commitment to social responsibility and community development investigates students' attitudes to community work as well as the extent of their participation in community work and volunteering. In the literature review the importance of having students participate in community work has been highlighted as an essential requirement for citizenship (Rhoads, 1998). Although some may see community work merely as skills whereby certain tasks are performed, community work does instill values and positive attitudes such as compassion and a sense of caring for others. However, literature does not highlight caring and compassion as citizenship attributes, but it does emphasize the importance of community work as a requirement for citizenship. Therefore when labeling the dependent variable, the concept "commitment to social responsibility and community development" was the most appropriate concept and the formulation of this concept has previously been discussed in section 3.6.5 in the chapter dealing with the theoretical framework.

Although the analysis involving commitment to social responsibility and community development follows a similar procedure as that for critical thinking, support for democracy and appreciation of diversity, the reporting of this variable is not as detailed as has been the case with the other three variables. The reason for this is that there were fewer questions in the survey that dealt with commitment to social responsibility and community development than was the case for critical thinking, support for democracy and appreciation of diversity. In hindsight it would have been useful to include more questions concerning students' commitment to social responsibility and community development. This would provide more information regarding student attitudes and participation in activities involving commitment to social responsibility and

community development. The questions that were used in the analysis for commitment to social responsibility and community development are revealed in the conceptual map in Appendix F. The first part of the analysis involves bivariate analysis to determine the extent of student involvement in community work.

5.8.1 Student involvement in community work

Analysis using cross tabulation reveals that 56% (477 out of n=857) of the respondents indicate that they are not involved in community work and volunteering. This is revealed in Table D1.1 in Appendix D1. As mentioned previously, the number of questions involving community work and volunteering are very limited but what can be concluded from the cross tabulation is that student involvement in community work and volunteering is also very limited. The following section discusses the multivariate analysis involving commitment to social responsibility and community development and investigates students' attitudes to community work and volunteering.

5.8.2 Determining student attitudes toward commitment to social responsibility and community development

Community work and volunteering have the potential of developing positive attitudes concerning citizenship and students involved in community work may also become more aware of the importance of social responsibility and the role that they can play in helping to improve the lives of people living in underprivileged communities. The multivariate analysis for this variable involves testing for normality, correlation, factor analysis and regression analysis, which is discussed next.

Normality Tests are run using Kolmogorov-Smirnov tests. Table 5.13 reveals that in all cases the significance factor is less than 5% which indicates that the distribution is not normal.

Table 5.11 Normality test for commitment to social responsibility and community development

	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
Commitment to social responsibility and community development	.204	620	.000
Volunteering in community outreach activities	.336	620	.000
Student Involvement in Development Agencies and Non-Political Organisations	.310	620	.000

a. Lilliefors Significance Correction

Factor analysis using Kaiser's criterion is used whereby only factors with eigenvalues of 1 or higher are retained for further analysis (Pallant, 2011, p. 184). The items involving commitment to social responsibility and community development are subjected to principal components analysis (PCA) using SPSS version 21. Table D1.2 in Appendix D1 reveals that the Kaiser-Meyer-Olkin value is 0.618, which exceeds the recommended value of 0.6 (Kaiser 1970, 1974). Bartlett's Test of Sphericity (Bartlett, 1954) also reaches statistical significance.

Principal components analysis reveals the presence of one component with eigenvalue exceeding 1, explaining 38.543% of the variance. This is shown in Table D2.1 in Appendix D2

The rotated component matrix reveals that only one component is extracted and that the solution cannot be rotated. Correlation involving the relationship between variables in the study is investigated using the Spearman Rho correlation coefficient and it was found that there is a weak, positive correlation between commitment to social responsibility and community development and volunteering in community outreach activities, $r = 0.157$, $n = 850$, $p < 0.01$.

It was also found that there is a weak, negative correlation between commitment to social responsibility and community development and student involvement in development agencies and non-political organisations, $r = -0.200$, $n = 832$, $p < 0.01$.

There is also moderate, negative correlation between volunteering in community outreach activities and student involvement in development agencies; and non-political organisations, $r = -0.373$, $n = 834$, $p < 0.01$.

The results of the correlation analysis reveal that increased student involvement in development agencies and non-political organisations may result in a decline in students' commitment to social responsibility and community development.

Table 5.12 Correlations for commitment to social responsibility and community development

	A	B	C
A	1		
B	.157**	1	
C	-.200**	-.373**	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

A= Commitment to social responsibility and community development

B= Volunteering in community outreach activities

C= Student Involvement in Development Agencies and Non-Political Organisations

This means that as student involvement in development agencies and non-political organisations increases their attitudes concerning commitment to social responsibility and community development decreases and vice versa. Similarly as student involvement in development agencies and non-political organisations increases their involvement in volunteering in community outreach activities. These are interesting findings as they indicate that involvement in one kind of activity, such as student involvement in development agencies and non-political organisations, may negatively influence involvement in other activities, such as student involvement in volunteering in community outreach activities. It may also negatively affect student attitudes concerning commitment to social responsibility and community development. This is discussed in greater detail in the following chapter dealing with the discussion of the findings. The following section looks at the interaction of variables involving commitment to social responsibility and community development.

5.8.3 Interaction of variables involving commitment to social responsibility and community development

Testing using Eta indicates that interaction with all variables such as faculty, academic year, gender, population group or nationality does not have a significant association with commitment to social responsibility and community development as shown in Table D2.2 in Appendix D2. The following section looks at the results of the regression analysis that was conducted.

5.8.4 Student activities that contribute to commitment to social responsibility and community development

The multiple regression analysis in this study involves the use of two approaches to multiple regression to find out what the relative contribution of each individual variable is in the model. The two approaches are simultaneous regression and stepwise regression. In the context of students' involvement in community work, the dependent variable is commitment to social responsibility and community development and the predictors or group of independent variables are student involvement in development agencies and non-political organisations and volunteering in community outreach activities.

The evaluation of how student involvement in development agencies and non-political organisations and volunteering in community outreach activities are related to commitment to social responsibility and community development involves the use of a simultaneous regression where all independent variables are entered into the regression at the same time (Pallant, 2011, p.149-150). Student involvement in development agencies and non-political organisations and volunteering in community outreach activities are significantly related to commitment to social responsibility and community development $F(2.\ 824) = 22.801$; $p<0.05$. The multiple correlation coefficient is 0.229, indicating that approximately 5% of the variance of commitment to social responsibility and community development can be accounted for by the combination of student involvement in development agencies and non-political organisations and volunteering in community outreach activities. It was found that volunteering in community outreach activities makes a significant contribution to commitment to social responsibility and community development, while student involvement in development agencies and non-political organisations may have the effect of reducing commitment to social responsibility and

community development. The regression equation for commitment to social responsibility and community development is therefore:

Commitment to social responsibility and community development=0.094 x Volunteering in community outreach activities -0.332 x Student involvement in development agencies and non-political organisations+ 5.837.The Model Summary, ANOVA and Coefficient tables that contain the information used in the standard regression analysis are contained in Tables D3.1, D3.2 and D3.3 in Appendix D3.

The stepwise regression method is used for commitment to social responsibility and community development to determine if student involvement in development agencies and non-political organisations and volunteering in community outreach activities are necessary to predict commitment to social responsibility and community development. The independent variables are entered into the SPSS programme and the regression output provides a model and the relative contribution of the individual variables (Pallant, 2011, pp.149-150).

At step 1 of the analysis student involvement in development agencies and non-political organisations are entered into the regression equation and it was found that it is significantly related to predict commitment to social responsibility and community development F (1,825) = 41.166, p=0.000 <0.01. The multiple correlation coefficient is 0.218. This indicates approximately 4.6% of the variance of the appreciation of diversity can be accounted for by student involvement in development agencies and non-political organisations. The regression equation for commitment to social responsibility and community development is therefore:

Commitment to social responsibility and community development= - 0.374 x Student involvement in development agencies and non-political organisations + 6.133.

At step 2 of the analysis student involvement in development agencies and non-political organisations and volunteering in community outreach activities are entered into the regression equation and it was found that it is significantly related to predict commitment to social responsibility and community development F (2,824) = 22.801, p=0.000 <0.01. The multiple

correlation coefficient is 0.229. This indicates approximately 5.0% of the variance of the commitment to social responsibility and community development can be accounted for by student involvement in development agencies and non-political organisations and volunteering in community outreach activities. Thus the regression equation for commitment to social responsibility and community development is:

Commitment to social responsibility and community development= -0.322 x Student involvement in development agencies and non-political organisations + 0.094 x Volunteering in community outreach activities + 5.837.

The stepwise regression reveals that volunteering in community outreach activities and student involvement in development agencies and non-political organisations make a significant contribution to commitment to social responsibility and community development. However an increase in student involvement in development agencies and non-political organisations may also lead to a decrease in commitment to social responsibility and community development.
The findings resulting from the analysis involving commitment to social responsibility and community development are discussed in more detail in the following chapter dealing with the discussion of the findings. The Model Summary, ANOVA and Coefficients tables that contain the information used during the stepwise regression analysis are contained in Tables D3.4, D3.5 and D3.6 in Appendix D3.

5.8.5 Summary of findings

There are several interesting findings highlighted in the analysis concerning student attitudes and their involvement in activities that may contribute to citizenship education. Generally it was found that students report positive attitudes towards citizenship and this is shown in the responses that were provided in the questions related to student attitudes to critical thinking, support for democracy, appreciation of diversity, and students' commitment to social responsibility and community development.

In terms of critical thinking, the analysis shows that students at UCT are exposed to many opportunities, both inside and outside of the classroom to develop their critical thinking skills

and that the majority of students spend a large proportion of their time engaged in academic activities that may develop their critical thinking skills. The analysis for the critical thinking variable required students to score themselves in terms of how much they think their critical thinking has improved since they started university and reveals that students' critical thinking at the beginning of studies, their interaction with lecturers, involvement in academic activities that require analysis and evaluation and their involvement in class discussion contribute significantly to their critical thinking skills.

The analysis for support of democracy involves establishing students' understanding of democracy as well as finding out what activities they are involved in that support democracy.
In terms of understanding democracy 87% of the respondents show an understanding of democracy and democratic processes; and also show attitudes that are supportive of democracy. However students at UCT generally do not participate in activities that support democracy such as being involved in political organisations and participating in demonstrations. The results of the analysis show that students who frequently discuss politics and student involvement in communing, contacting and protesting contribute significantly to knowledge and support of democracy. It was also found that increased student involvement in organisational structures such as political organisations may have the effect of decreasing student knowledge and support of democracy.

Regarding appreciation of diversity, the analysis shows that students at the university interact with diverse others on a regular basis but that this interaction occurs mostly where differences are observable such as is the case with race or ethnicity, but that they interact to a lesser extent where differences are not as observable. The analysis reveals that English language skills, interaction with diverse others, foreign language skills, student involvement with organisations that encourage diversity interaction and South African language skills contribute significantly to an appreciation of diversity. The regression reveals that increased student involvement in organisations that encourage diversity interaction may have the effect of reducing appreciation of diversity.

Regarding students' commitment to social responsibility and community development, students showed positive attitudes concerning the questions involving the importance of social responsibility, compassion, commitment and ethics. However, most students indicated that they are not involved in community work or volunteering. The analysis reveals that student involvement in development agencies and non-political organisations and volunteering in community outreach activities contribute significantly to students' commitment to social responsibility and community development. In the case of student involvement in development agencies and non-political organisations, it was found that increased student involvement may have the effect of reducing students' commitment to social responsibility and community development.

It is important to highlight that the analysis shows that increased involvement in communing, contacting and protesting; as well as participation in organisations that encourage diversity interaction and community work may indeed have the effect of decreasing knowledge and support of democracy, student appreciation of diversity and commitment to social responsibility and community development. The findings of the study in relation to the literature review are discussed in more detail in the following chapter.

CHAPTER SIX

Discussion

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6.0 Outline of the study

This chapter discusses the findings of the study concerning critical thinking, knowledge and support of democracy, appreciation of diversity and commitment to social responsibility and community development.

Each of these is discussed individually in this chapter and looks at what was being investigated, identifying the dependent and independent variables that were used, summarizing the key findings, discussing the literature in relation to the findings indicating how the findings either support or reject what is being said in the literature.

The following section explores the findings concerning critical thinking.

6.1. Critical Thinking

Critical thinking has been identified as a skill that is important for democratic citizenship and according to relevant literature it is essential that students at university spend time engaged in activities that will help in developing their critical thinking skills (Volman and ten Dam, 2004, p. 360). The literature review highlighted the fact that critical thinking can be fostered both within the formal curriculum and in participation in out-of-class activities. It was found that classroom-based activities include class discussions and work that involves the use of certain cognitive skills such as the ability to break down and judge information; while out-of-class activities include, amongst others, interacting with lecturers and involvement in research projects (Pascarella and Terenzini, 1991; Astin, 1997; Levis-Fitzgerald et al., 2003; Volman and ten Dam, 2004; Schoeman, 2006; Braskamp, 2010).

In the analysis of the critical thinking variable the dependent variable involves student attitudes towards critical thinking and these attitudes were measured by having students rate their

proficiency in critical thinking when they started their studies at university and also at the time that they completed the questionnaire.

The independent variables involve the activities that students were engaged in that help in the development of their critical thinking skills. The first part of the analysis involved identifying sections in the questionnaire dealing with academic engagement since involvement in academic and curricular activities is regarded as being important in the development of critical thinking skills. This phase of the analysis identified questions related to the student's participation in classroom discussions, whether students interact with academic staff and how proficient students regard themselves in having developed certain critical skills at university as being important for the development of a variety of critical thinking skills that include, amongst others, analysis and evaluation skills (Astin, 1997; Anderson et al., 2003; Volman and ten Dam, 2004).

One of the most compelling findings is that students' critical thinking skills when they started their studies at university is the variable that contributes most significantly to their current critical thinking skills. This is interesting as it suggests that the students' background may be the most significant contributor to current critical thinking and a conclusion that can be drawn from this finding is that the years students spend at university do not contribute as much to their current critical thinking as one would have expected. Despite the fact that the student's background does not constitute an activity, this finding should not merely be disregarded since it agrees with what has been identified in relevant literature and deserves more investigation. It may also be useful to examine what it is within these pre-university years that have contributed significantly to critical thinking and also look at what may be lacking in the student experience that could help in developing students' critical thinking skills while they are at university. The results of the analysis have revealed that there are also other activities that contribute significantly to students' critical thinking skills and these involve student interaction with lecturers, student involvement in curricular tasks such as analyzing and evaluating information; and student contribution to class discussions. Each of these is discussed individually in the sections that follow, starting with the discussion regarding students' critical thinking skills when they started their studies at university.

6.1.1 Students' critical thinking skills when they started their studies.

The findings of the study, as shown in section 5.5.4, reveal that students' critical thinking skills at the start of their studies at university contribute most to their current critical thinking skills. The research questions sought to find out what student activities contribute to students' critical thinking skills and even though critical thinking skills at the start of their studies may not necessarily be regarded as being an activity, this is still an important finding and agrees with much that has been found in the literature regarding the importance of taking students' background into consideration when looking at the development of critical thinking skills.

The importance of students' background in the development of their critical thinking skills has been emphasized by various scholars such as Bloom and Norris. The contribution of Bloom's taxonomy is quite relevant to the findings in this study since Bloom developed a taxonomy that provides a framework for understanding how critical thinking skills may be developed. The work of Norris (1985) and Davids and Waghid (2012) is especially relevant to the findings concerning students' background as they discuss the importance of students' background in relation to the development of their critical thinking skills.

Kam and Palmer (2008) and Enslin (2010) also support the findings concerning students' background and claim that citizenship education should start much earlier than at higher education level, usually already at the level of primary and secondary education. For these reasons an investigation of the cognitive skills acquired during students' pre-university years may help in understanding what is required within the student experience during the students' years of study at university that can help in the development of critical thinking skills. As a starting point, an investigation of Bloom's taxonomy may be useful as it can serve as a guide for understanding students' cognitive development.

The contribution of Bloom's taxonomy to understanding critical thinking was introduced in section 1.1 where the differences between the original and revised versions of the taxonomy were highlighted. Bloom's taxonomy follows a hierarchical structure that assumes that students would have to develop certain basic thinking skills such as remembering and understanding before they are able to cope with activities requiring higher levels of thinking such as evaluating

and creating (Anderson and Krathwohl, 2001; Forehand, 2010). These basic skills such as remembering and understanding and even higher level skills such as evaluating and creating are skills that are developed during the course of the students' years at primary and secondary school. By the time students enter higher education it is expected of them to have mastered these skills. These skills are therefore a necessary requirement for students before starting their university studies and literature also highlights the fact that students' experiences differ since they come from different educational backgrounds.

In terms of having developed certain cognitive skills needed to excel in higher education, Norris (1985) finds that students' background knowledge can strongly affect their ability to think critically since the ability to think critically requires the ability to make correct inferences. Norris claims that, "Inferences are more likely to be correct when the context relates to the individual's personal experience" (1985, p.44). The importance of being able to make correct inferences is related to students' individual personal experiences. Personal experiences constitute more than merely the academic activities students are engaged in and consist of the sum total of students' overall experiences.

The differences in students' background and experiences is a factor that is very relevant to the South African situation since students enter higher education coming from a secondary education system that is still characterized by huge inequality. Students enter university with different thinking, writing, reading and comprehension skills and the reasons for the differences in the students' thinking, writing, reading and comprehension skills may be traced to factors such as parental education and academic preparation. In terms of parental education, students who come from homes where the parents are educated may benefit from parents who are in a position to help them with activities such as homework. With regard to academic preparation, students who come from a privileged schooling system may also be better prepared for the academic demands of life at university. Therefore those students who have not yet mastered basic reading and comprehension skills by the time they start university cannot be expected to have the same abilities after a year or two of university education compared to other students who enter university with more advanced thinking, reading and comprehension skills. The student who has experienced a disadvantaged secondary education therefore still has to master certain skills in

order to reach the same level as the student who has been exposed to a more privileged and advanced secondary education. The preceding discussion reveals that students' background plays an important role in understanding and explaining students' current level of critical thinking. The analysis involving critical thinking has also revealed that the extent to which students interact with their lecturers also contributes to the development of critical thinking skills, which is discussed in the following section.

6.1.2 Student interaction with lecturers

Following students' critical thinking skills at the start of their university studies, interaction with lecturers is the variable that contributes most significantly to current critical thinking skills as shown in section 5.5.4 where it is shown that 24% of the variance of the current critical thinking could be accounted for by critical thinking at the beginning of students' studies, interaction with lecturers, academic analysis and evaluation and class discussion. Apart from students' critical thinking skills level at the start of their university studies, which acts as a background variable, interaction with lecturers is regarded as the variable that contributes most significantly to current critical thinking skills. There are various ways that students interact with their lecturers and these include class discussions and working on research projects. The finding that interaction with lecturers contributes significantly to current critical thinking skills is in agreement with what has been found in the literature review where it is stated that any kind of academic interaction with lecturers is beneficial to the development of students' critical thinking skills (Tinto, 1997; Levis-Fitzgerald et al., 2003).

As mentioned above the latent variable involving interaction with lecturers is made up of various kinds of interaction with lecturers that range from classroom discussions to working with their lecturers on research projects. Several questions in the questionnaire were used in the analysis of this variable, as shown in the conceptual map in Appendix F. Interaction with lecturers helps in developing critical thinking skills since it encourages dialogue and discussions which help in the learning process; it allows students to engage with teaching staff and make sense of their academic work; furthermore it provides students with different perspectives and helps in broadening their knowledge and deepening their understanding of their work (Levis-Fitzgerald et al., p.103). In addition to the development of critical thinking skills, interaction with lecturers

gives students a sense of belonging since the classroom is the space where many students get the opportunity to interact with other students and staff both on a social and academic level (Tinto, 1997, p. 599). The following section looks at specific academic activities students are involved in that may contribute to the development of critical thinking skills.

6.1.3 Academic activities requiring analysis and evaluation

The findings in section 5.5.4 reveal that activities involving analysis and evaluation contribute significantly to current critical thinking and this finding is supported by several scholars who claim that the requirements of the curriculum and the activities that students are involved in, either in the classroom or laboratory, help in developing their critical thinking skills (Pascarella and Terenzini, 1991; Kuh, 1995; Anderson and Krathwohl, 2001). Pascarella and Terenzini have found that critical thinking involves the ability to, "identify central issues and assumptions in an argument, recognize important relationships, make correct inferences from data, deduce conclusions from information or data provided, interpret whether conclusions are warranted on the basis of the data given, and evaluate evidence" (1991, p.118). The two questions in the questionnaire involve the analysis and evaluation skills identified by Pascarella and Terenzini**.** The first question looks at students' ability to break down material into component parts or arguments into assumptions to see the basis for different outcomes or conclusions. The second question looks at how students judge the value of information, ideas, actions, and conclusions based on the soundness of sources, methods and reasoning. Both these questions relate to specific abilities involving critical thinking.

Anderson and Krathwohl (2001) and Forehand (2010) investigated Bloom's taxonomy and established that Bloom' s taxonomy is used as a measure for thinking and has also given rise to important concepts in education such as creative thinking and critical thinking. In the revised taxonomy breaking down material into component parts or arguments into assumptions to see the basis for different outcomes or conclusions has been identified as a function of analysis while judging the value of information, ideas, actions, and conclusions based on the soundness of sources, methods and reasoning has been identified as a function of evaluation. These are higher level thinking skills and exposing students to curricular work that helps in developing these abilities has great potential in developing students' critical thinking skills.

Furthermore the statement made by Kuh that the curriculum is the framework around which organization takes place for institutions of higher learning and that classrooms and laboratories offer opportunities for the development of skills such as critical thinking and organizational skills (1995, p.149-150) supports the findings of this study and emphasizes the importance of having students participate in curricular activities that develop their analysis and evaluation skills. Activities involving analysis and evaluation are not the only student activities in the classroom that may help develop critical thinking skills and the following section looks at the role of students' contribution to class discussions in relation to their critical thinking skills.

6.1.4 Students' contribution to class discussions

The findings identified students' contribution to class discussion as a variable that also contributes significantly to critical thinking as shown in section 5.5.4. Students' contribution to class discussions involves bringing up ideas or concepts from different courses as well as interaction with both their lecturers and their peers. Interaction of this kind contributes to the creation of an effective learning environment. Tinto highlights the importance of the classroom experience and finds that the classroom is central to education since it is here that many students get the opportunity to interact with other students and staff through discussion, resulting in this being the space where social and academic integration is most likely to occur (1997, p. 599).

In many respects having students contribute to discussions help in the process of achieving social and academic integration. However, merely having social and academic integration may not be sufficient to foster the development of critical thinking skills. As has been identified by Astin (1997) it would require active participation of students in class discussion to foster the skills necessary for critical thinking. Astin suggests that there must be a movement away from seeing students "in a passive role as recipients of information" (1997, p. 203). Instead they should become active participants in the educational process who voice their views and opinions in class. Astin contends that this is a way in which an environment that is more conducive to effective learning can be created since students then become more involved in interacting with lecturers and their fellow students (1997, p. 199). The findings of this study therefore support the claims made by scholars such as Astin who argue that contributing to class discussion may

increase general student involvement, which has the potential to develop their critical thinking skills and also enhance their overall educational experience.

The key insights from the findings are that student interaction with lecturers, engagement in activities that require the ability to analyse and evaluate academic work, as well as student involvement in class discussions contribute significantly to the critical thinking skills development. The importance of having students communicate with their peers and their lecturers, both inside and outside of the classroom, therefore appears to be essential for the development of their critical thinking skills. The next section discusses the findings involving knowledge and support for democracy.

6.2 Knowledge and support for democracy

Knowledge and support of democracy was analyzed in two stages. The first stage involved determining students' understanding of democracy and the second stage involved looking at student attitudes and involvement in activities that support democracy. The reason for using both these methods of analysis for knowledge and support of democracy was guided by previous HERANA work that emphasized the importance of determining students' understanding of democracy. Before examining students' understanding of and their attitudes towards democracy, it is useful to provide some background information concerning this study and discuss how the variables used in this study differ from previous studies of its kind.

There have been similar studies done concerning student support for democracy, most notably those done by HERANA that have focused on student participation and leadership in politics and student governance structures (Mattes and Luescher-Mamashela, 2012, p. 145-146). Similar to other studies of its kind, this study also looks at the activities students are involved that may foster support for democracy. It looks at, amongst other things, how involved students are in political organisations and how often students discuss politics. However, this study differs from similar studies since new questions involving students' cognitive awareness of democracy are included that focus on students' understanding of the Constitution, the Bill of Rights, and the values enshrined in both. The survey has questions involving students' knowledge and

understanding of the structure of government, political processes, political concepts and issues; and student participation in democratic processes. Similar to previous studies of its kind, there is a question that seeks to find out if students prefer democracy to its alternatives.

The dependent variable in this study involves student attitudes towards democracy while the independent variables are made up of student participation in activities that support democracy. The student support for democracy variable uses a combination of these methods together with questions that measure students' understanding of democracy and politics, how often students discuss politics, how involved students are in political organisations; as well as questions looking at how important students consider certain citizenship attributes related to democracy and politics. The discussion of the findings of this study is presented in two parts. The first part involves looking at students' understanding of democracy and the second part looks at the findings from the regression analysis that sought to discover what activities students are involved in that contribute to knowledge and support of democracy. The next section explores students' understanding of democracy.

6.2.1 Students' understanding of democracy

This study investigates student support for democracy and looks at two ways in which student support for democracy is measured. It builds on the HERANA work by Luescher-Mamashela et al., (2011) and adapts some of the questions used in Afrobarometer studies.

The findings in section 5.6.1 reveal that students at UCT generally understand democracy as a system of government that includes freedoms such as the freedom to join political groups of choice, the freedom to participate in open debates and discussions; and having a say in making decisions for the country through voting. It was found that 87% of the participants in the survey can differentiate between democracy and non-democratic forms of government and also identify key features of democracy such as free and fair elections and voting rights, popular participation and deliberation which represent equality, and fairness and justice representing good governance. This is in agreement with the claim made by Heywood (1992) that democracy can be measured through certain criteria such as equality in voting, participation in democratic processes and

understanding of democracy. Dalton et al., also claim that people tend to view democracy, "… in terms of the freedoms, liberties and rights that it conveys" (2007, p.16).

According to the coding used in the analysis process, it appears that only 0.2 % (representing 2 out of 861) of the participants viewed socio-economic development as one of the important criteria when defining democracy, which agrees with claims by Bratton and Mattes that the delivery of economic goods is not tied to support for democracy (2001, p.471). Dalton et al., also claim that most people do not attach social benefits to democracy (2007, p.16). An understanding of democracy is the first manner in which support for democracy was analyzed and the following section looks at the findings from the regression analysis concerning the activities that students are involved in that support democracy. In this regard the findings concerning students' discussion of politics are explored first.

6.2.2 Students' discussion of politics

The findings as shown in section 5.6.6 reveal that the most significant variable that contributes towards students' knowledge and support of democracy involves the frequency of students' discussion of politics. Mattes and Bratton contend that one of the most important factors that is preventing people from being committed to democracy is that they are not engaged in politics and generally do not possess much political information; and that this lack of knowledge is a problem they believe can be overcome through having people gain access to media and education (2007, p.204).

A great deal of the political information Mattes and Bratton refer to may be gained by having students become involved in political discussions. Since students at UCT have access to education and media, it would be expected that students often discuss politics with their peers either on campus, off campus or in social media such as Facebook and Twitter. The fact that discussions take place has various benefits since students then have the opportunity to gain a deeper understanding of and insight into political matters. It can be concluded that the findings support the claims made by Mattes and Bratton (2007), and that students' access to education, media, and their discussion of politics may be a contributing factor to their understanding of

democracy. The following section focuses on student involvement in communing, contacting and protesting.

6.2.3 Student involvement in communing, contacting and protesting

The activities that make up communing, contacting and protesting include writing letters to Varsity and other newspapers and participation in demonstrations. The findings in section 5.6.6 reveal that even though students generally understand how democracy works their involvement in communing, contacting and protesting is very limited. The findings of the study in section 5.6.3 also reveal that even though student involvement in political organisations and their attendance of political meetings are limited, they indicated that if they were given the chance to participate in such activities in future, they would do so. This is an indication of a positive attitude concerning support for democracy.

Furthermore the results of the regression analysis reveal that while student involvement in communing, contacting and protesting contribute significantly to knowledge and support of democracy as revealed in section 5.6.6, an increase in student involvement in these activities may lead to a decline in knowledge and support of democracy. Students frequently discussing politics can therefore be regarded as the most significant contributor to knowledge and support of democracy.

The findings are to a certain extent similar to findings by Mattes and Luescher-Mamashela who claim that student involvement in political discussion, their usage of news media and high levels of political knowledge are an indication that universities may function as political 'hothouses' (Mattes and Luescher-Mamashela, 2012, pp.163-164).

The findings in this study fill a gap in understanding how political knowledge is gained as the results of the regression analysis reveal that having students engage in political discussions may have the effect of increasing their political knowledge. This could also be extended to relating critical thinking to an understanding of democracy and politics since it was found during the analysis of the critical thinking variable that having students engage in discussions significantly contributes to the development of their critical thinking. The findings of the study may also raise

questions concerning what is more important for universities to function as "hothouses" or "training grounds" since the idea of universities as "hothouses" assumes that students are involved in frequent discussion of politics, exposed to a wide range of news media, and participate in campus organisations, but that involvement in these activities decreases once they leave university (Mattes and Luescher-Mamshela, 2012, p.164).

It can therefore be concluded that students should spend time engaged in communing, contacting and protesting as well as discussing politics in order to improve their knowledge and support of democracy. The following section looks at the findings involving students' appreciation of diversity.

6.3. Appreciation of diversity

The appreciation of diversity variable consists of various components as it looks at student interaction with diverse others as well as students' understanding of various languages. The variable that involves diversity interaction looks at how students engage with other students who are different from them in terms of aspects such as race, religion, sexual orientation, nationality, age and language.

The dependent variable in the study was evaluated by using students' self-reported proficiency scores where students are required to rate themselves in appreciating, tolerating and understanding diversity. The independent variables consisted of student involvement in activities and organisations that encourage diversity interaction; how often students interact with diverse others and students' understanding of South African and foreign languages.

The literature review looked at the importance of appreciating and interacting with diversity, how it relates to citizenship education and showed that the ability to appreciate and interact with diversity is one of the elements that is regarded by many scholars as an essential requirement for citizenship education since it enables students to learn from one another's background and also gain an understanding of the perspectives and experiences of others (Gurin et al., 2002; Davids and Waghid, 2012). The appreciation of diversity variable looks at students' interaction with

other students who are different and this difference may be based on race, religion, sexual orientation, nationality, age or language. This variable was analyzed and measured by investigating how often students engage with diverse others. The appreciation of diversity variable included students' appreciation of global and cultural diversity. The analysis for the appreciation of diversity variable relies on students' self-reported scores concerning their perceived improvement in their ability to appreciate diversity. This is discussed in more detail in the following section that also deals with the role of language skills.

6.3.1 The role of language skills

The questionnaire contains a set of questions that were used in the analysis process and these questions looked at how students rate themselves when it comes to appreciating, tolerating and understanding diversity as well as questions requiring students to rate their proficiency in local and foreign language skills. The dependent variable investigates how students rate themselves when it comes to appreciating, tolerating and understanding diversity while the independent variable examines students' self-reported proficiency in local and foreign language skills. South Africa is a multicultural society with eleven official languages and this is one of the reasons why language skills were included in the analysis for appreciation of diversity. Another reason why languages were included in the analysis is that it was guided by literature, most notably that of Starkey (2002) who emphasizes the importance of language education and its relation to citizenship education. The questions concerning language skills may also be indicators of the extent of student interaction with foreign students, especially those foreign students who may not be proficient in English and other South African languages. In light of this it is important to remember that students' language skills were included in the regression analysis to see what impact students' language skills may have on their ability to interact with diverse others.

The sections that follow look at the findings of the study and the relevance of the findings in relation to literature concerning the role of language skills, student interaction with diverse others and student involvement with organisations that encourage diversity interaction.

The findings reveal that students' local and foreign language skills contribute significantly to an appreciation of diversity. Languages are considered to play an important role in students' ability

to interact with diverse others. English language skills are the most significant contributors to an appreciation of diversity, followed by foreign language skills and South African language skills other than English. Students' understanding of foreign languages may serve as an indication of the extent of students' interaction with foreign students, especially in cases where foreign students are not fluent in English. Language skills may not necessarily be regarded as student activities but literature supports the position that language skills are an important part of democratic citizenship education (Starkey, 2002, p. 20). Furthermore the finding concerning the importance of language skills is noteworthy and may point to the need for higher education institutions to create opportunities for students to improve their proficiency in various language skills since it enables better communication amongst students of different nationalities and different racial, ethnic and cultural backgrounds. It can therefore be concluded that literature supports the findings concerning language skills. The following section looks at how students interact with diverse others.

6.3.2 Student interaction with diverse others

The findings show that having students interact with diverse others contributes significantly to an appreciation of diversity as shown in section 5.7.4. This is in agreement with what has been established in the literature review where it is claimed that there are several benefits for having students interact with diverse others. This statement is supported by Davids and Waghid who claim that, "understanding and knowing the otherness of the other" is important as it allows for a person to gain the perspectives of other people (2012, p. 22). Gurin et al., also claim that, real interaction, "includes learning about difference in background, experience, and perspectives, as well as getting to know one another individually in an intimate enough way to discern common goals and personal qualities" (2002, p. 336). It is also important to remember that there are different types of diversity interaction that one encounters on university campuses. Hu and Kuh examined three levels that student diversity can be investigated at and identified these as structural diversity that involves the whole student body and its breakdown in terms of demographics, classroom diversity which is related to the representation of diversity within the curriculum; and interactional diversity which involves actual interaction amongst diverse peers (2003, pp. 320-321). The findings agree with the literature review in that interactional diversity

should be encouraged as it is this kind of diversity that allows for students from diverse backgrounds to engage with one another (Hu and Kuh, 2003; Kuh and Pike, 2006).

The questionnaire posed certain questions concerning interactional diversity and the results of the analysis reveal that students interact mostly with diverse others where the differences between themselves and others are visible such as race, economic and social status; and nationality. Interaction with diversity is not as high when the difference is not as easily observable as may be the case of sexual orientation and health status. The reasons why students interact with each other have been expanded upon in the literature and it was found that there are various factors that may influence interactional diversity. Kuh and Pike state that these include student experiences before they start studying at university as well as other factors such as parents' education; whether or not students are part of minority groups; and degree of academic preparation (2006, p. 427).

There are various benefits to interactional diversity that include improved personal and learning development of all students (Hu and Kuh, 2003, p. 332). The specific developmental benefits are expanded upon by Gurin et al., (2002) who developed a theory claiming that encountering diversity on a university campus has the potential to challenge students to think more about the importance of interacting with diverse others which could also alter students' view of the world and their way of thinking, thereby holding more developmental benefits for students. Gurin et al., also claim that this may compel students to recognize that their peers face discrimination and thereby direct their attention to issues surrounding social justice and equality. They also claim that exposing students to courses about diversity within the academic curriculum help foster active and critical thinking as it will provide the knowledge about ethnicity and race that is needed for meaningful interaction with diverse others. The findings regarding student involvement with organisations that encourage diversity interaction are discussed in the following section.

6.3.3 Student involvement with organisations that encourage diversity interaction

Student involvement with organisations that encourages diversity interaction is another variable that contributes significantly to an appreciation of diversity as shown in section 5.7.4. Student

organisations play an important role and institutions have two important functions to fulfill in this respect. Firstly, institutions should ensure that their student body consists of a diverse group of people and secondly, institutions should put structures such as student organisations in place that encourage interactional diversity. Literature supports this statement as Hu and Kuh (2003) suggest that this structure should be extended to students' living environments. This may have the effect of creating a more productive environment that may facilitate interaction between students and staff (Pike and Kuh, 2006, p.445).

The findings in section 5.7.4 reveal that the variables that "contribute" significantly to appreciation of diversity are students' language skills, having students interact with diverse others and student involvement in organisations that encourage diversity interaction. While it was found that students' language skills and having students interact with diverse others contribute positively to an appreciation of diversity, an increase in student involvement in organisations that encourages diversity interaction may have the effect of reducing appreciation of diversity. This may raise questions concerning the nature of activities that are taking place within these organisations, and an investigation regarding the nature and role of organisations that encourage diversity interaction will be useful in determining why increased involvement in these organisations hasthe effect of reducing students' appreciation of diversity. However, the answer to this question can only be found with further research involving interviews. The next section looks at students' commitment to social responsibility and community development, their involvement in community work and the attitudes and skills that are developed because of involvement in such work.

6.4 Commitment to social responsibility and community development.

Students' commitment to social responsibility and community development was investigated by looking at the students' involvement in and attitudes towards volunteering and community work. Community work can take many forms and this was discussed extensively in the literature review where it was shown that community work may include work that is performed as part of the student's academic work, which is often referred to as service learning or fieldwork; or it can be community work that the student participates in on an extracurricular or off-campus basis

such as volunteering (Rhoads, 1998; Annette, 2002; Davidson and Arthur, 2003; Keen and Hall, 2007; Bender, 2008; Finley, 2011). The literature review reveals that volunteering and involvement in community work can also be associated with the objective of achieving social justice (Denson et al. 2005; Jay, 2008; Jacoby, 2009; Finley, 2011; Humphreys, 2011).

The dependent variable in the study was conceptualised as students' commitment to social responsibility and community development and the reason for choosing this concept has been explained in section 3.6.5 dealing with the theoretical framework. The independent variables involved student participation in volunteering and in organisations that encourage community work. Students' commitment to social responsibility and community development was measured by determining the amount of time students spend on these activities and their attitudes towards community work and volunteering; and there were questions connected to it that investigate both students' attitudes and involvement in community work.

The findings in section 5.8.4 reveal that the two variables that "contribute" significantly to commitment to social responsibility and community development are students' involvement in development agencies and non-political organisations; and volunteering in community outreach activities. While it was found that volunteering in community outreach activities contributes positively to commitment to social responsibility and community development, an increase in student involvement in development agencies and non-political organisations may in fact have the effect of reducing students' commitment to social responsibility and community development. This is similar to the findings for appreciation of diversity where it was found that an increase in student involvement in organisations that encourage diversity interaction may have the effect of reducing appreciation of diversity. The following section discusses the findings concerning student involvement with organisations that encourage community work and volunteering.

6.4.1 Student involvement with organisations that encourage community work and volunteering

In many respects the findings of the study are in agreement with what has been established in the literature review, in that involvement in community work can be regarded as an important

element of democracy and citizenship. Rhoads draws attention to this and highlights the importance of community service and the obligation people have to one another, stating that this is frequently highlighted as an essential element of democracy (1998, p. 294). Having students participate in these activities also help in developing those skills that are necessary for them to continue making a contribution to society in the future. Literature also claims that even in circumstances where people's motives for participating in community work may not necessarily be altruistic involvement in such work still holds benefits for society. Lawson (2001) emphasizes this point and it can be concluded that volunteering and involvement in community work have positive benefits for society. However, what may be of concern is the kind of involvement that students are engaged in as the findings show that, while volunteering contributes significantly and positively towards students' commitment to social responsibility and community development, an increase in student involvement in development agencies and non-political organisations may have the effect of reducing commitment to social responsibility and community development.

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Furthermore the findings reveal that most students at UCT show very little commitment to community work with 56% of the respondents indicating that they are not involved in community work and volunteering as revealed in section 5.8.1. Various assumptions can be made regarding this finding, one of them being that many students who are involved in community work may be doing so simply because it forms part of the requirements of their coursework. However, the reasons for this can only be established through further interviews with students. The conclusions from the preceding discussions are that volunteering and involvement in community work should be encouraged at institutions of higher learning and this statement is supported by literature, as shown in section 2.4.1. The main concern revolves around the kind of activities that students engage in since it was found that increased student involvement in organisations that encourage diversity interaction may have the effect of decreasing student commitment to social responsibility and community development.

6.5 Limitations of the study

The literature review has revealed that student learning in and out of class is a seamless process whereby events and activities students are involved in blend, and that students do not divide what they learn into categories of experiences from the classroom, residence and other activities (Hu and Kuh, 2003). However, in this study student activities were categorized in order to answer the research questions and establish what activities students are involved in that have the potential to contribute to citizenship education. Using this technique has certain benefits as it helps in addressing the research questions in this study, but it also presents a few limitations.

In this study the contribution of student activities to citizenship education have been investigated and although the use of the survey was seen as the most suitable method to answer the research questions at the time, it was found that there are some limitations to using this research design. There were also other limitations regarding the methodology and analysis.

This study also leaves space for future research because of the limit in its focus.

One of the key limitations in the study is that it provides a 'snap-shot' and does not provide reasons for students' lack of involvement in certain activities. Although the purpose of the study is to establish the activities students are involved in that contribute to citizenship education, establishing the reasons for the lack of student involvement may have been useful in relating the findings to what is contained in relevant literature.

A further limitation in the study involves the self-reporting of scores. The self-reporting of data occurs in many sections of the questionnaire and in certain sections such as critical thinking and appreciation of diversity students were required to report how proficient they regard themselves in these skills when they started their studies at UCT as well as their proficiency in these skills at the time that they completed the survey. The problem with self-reporting of this kind is that it may lend itself to bias and this occurrence may have been more likely to happen in situations where self-reported scores were required for critical thinking since students may have provided higher self-reported scores for critical thinking skills than providing a true reflection of the actual level of their critical thinking skills. Furthermore, merely having students indicate that they are

involved in development agencies and non-political organisations does not provide a clear idea as to the kind of community work and volunteering students are involved in. Obtaining such information will be useful in establishing why students become involved in certain activities.

Methodological limitations in this study involve the questionnaire that was used in the study. Although an attempt was made to make the questionnaire as short as possible, the final electronic questionnaire was still quite long and it is likely that the length of the questionnaire may have caused the students to become discouraged in attempting or completing it.

The survey had a census design whereby all undergraduate students were invited to participate in the survey. In the end only a small percentage of the student population participated with the result that there are limitations inherent in the sampling. It would have been preferable to have a larger sample to see if the results of the analysis would have yielded different results. However, this limitation was addressed by weighting the sample to make it representative of the student population.

Furthermore the data lends itself to many more and different types of analyses, but the study has remained mostly at a descriptive level so as to make an empirical contribution to understanding the contribution of student activities to citizenship education. The purpose of the study is to generalize and the possibility exists that the study may end up being a trade-off of depth of insight for breadth of data and generalizability. This may also mean that there is a wealth of data that is not being tapped into sufficiently.

There were also limitations inherent in the analysis, especially concerning the construction of latent variables such as the ones involving critical thinking and language skills. These variables measured students' current proficiency in critical thinking and language skills as well their proficiency in these skills at the start of their studies. A process of trial and error was followed whereby variables were removed and added to create latent variables involving critical thinking and language that would make most sense. The factor analysis was repeated several times whereby variables were added and removed which resulted in latent variables that did not seem to fit together. For example, when students' language skills at the start of their studies were

removed from the factor analysis process, other latent variables were either split up or new ones were created that did not have any relation to one another in terms of what they were measuring. An example of where latent variables were split up would be the variable that examines differences amongst students where differences based on the students' health condition would be separated from other variables such as nationality and race. Although it would have been preferable to have latent variables that only measured students' current skills instead of having a latent variable that consists of a combination of current skills and skills at the start of the students' studies, the composition of these latent variables was the result of the factor analysis process. Therefore, including the variables measuring both the students' current skills and their skills at the start of their studies produced the most meaningful combinations of latent variables that would enable further analysis and find answers to the research questions pertaining to the study.

The limitations that resulted from the construction of the variables using factor analysis shed light on the fact that Table 3.1 which identifies the dependent and independent variables would have to be revised. A revision of Table 3.1 would involve the addition of more questions to the commitment to social responsibility and community development variable since the amount of information that was used in the analysis for this variable was very limited. Clarity concerning what the dependent and independent variables are would also have to be revised especially those concerning the appreciation of diversity variables where there may be some confusion as to whether language skills are independent or dependent variables since the analysis of language skills also involves the use of self-reported proficiency scores.

Lastly, during the data collection of the survey, students were under pressure preparing themselves for final examinations which might have prohibited some students from participating in the survey. The following chapter concludes the dissertation and provides recommendations for future research.

CHAPTER SEVEN

Conclusions and recommendations

7.1 Aims and objectives of the study

The main aim of the study was to determine what activities students are involved in that contribute to citizenship education. The objectives of the study focused on what activities students are involved in that contribute to citizenship education. It involved determining the extent of student participation in activities that may contribute to critical thinking, support for democracy, students' appreciation of diversity and their interaction with diverse others as well as student involvement in volunteering and community work as measured, for example, by the amount of time that students spend on certain curricular and co-curricular activities and community work.

Another important objective involved determining student attitudes with respect to their critical thinking skills, support for democracy, students' appreciation of diversity and the importance of involvement in social responsibility programmes and community work. The last objective involved determining the extent to which students possess certain kinds of attributes of democratic citizenship (as measured in terms of certain attitudes, skills and competencies noted in relevant literature) and trying to relate the activities students are involved in to their attributes of democratic citizenship.

In Chapter one of the thesis the problem statement, research questions, rationale and objectives of the study were formulated. This was based on gaps that have been identified in previous studies dealing with citizenship in South Africa and other countries. The problem statement identified that the amount of research and literature on the importance of student engagement in citizenship education in the United States is extensive, but that the amount of empirical research on the topic in South African higher education is still limited; and that more quantitative research on citizenship education was needed. This study has addressed the problem statement, the aims, objectives and the different aspects of the research question that have been identified and in spite of limitations of the study it has made a contribution in determining the extent to which students

at a South African university are involved in activities that may contribute to citizenship education.

In Chapter two an intensive literature review was conducted and the contributions of various scholars in the field of education and student development in South Africa and other countries were examined and analyzed. Requirements for student activities and attitudes that may lead to positive attitudes towards citizenship have been well documented. The scholars that have been reviewed include Pascarella and Terenzini (2005) and Astin (2007). Literature endorsed the findings of the study and it was found that specific activities and attitudes needed for an in-depth understanding of the requirements of democratic citizenship have been researched in international academic studies.

In Chapter three the theoretical framework for this study was presented. The theoretical framework guided the research process. The theoretical framework served as a guide for asking questions, analyzing the survey responses obtained in the survey; and also connecting it with the literature that has been reviewed.

Chapter four focused on the research design and methodology that provided the rationale for the research approach that was taken. The sample that was realized was smaller than originally anticipated but despite this, the results of the study were still reliable and valid.

Chapter five presented the data that was analyzed quantitatively. This analysis was based on the theoretical framework and the Statistical Package for Social Sciences programme (SPSS) was used in the analysis process. A series of tests leading to the regression analysis was conducted and the regression revealed that students generally show positive attitudes towards citizenship but that their involvement in activities such as volunteering has been limited.

Chapter six discussed the findings and provided a more in-depth and detailed discussion whereby the findings were connected to the literature. It was found that the literature that has been reviewed proved to be very relevant to the findings of the study.

Chapter seven concludes the dissertation with possible implications of the study and suggests areas for future research.

In the introduction to the dissertation the main research question concerning what activities students are involved in that contribute to citizenship education was posed and a set of questions were tied to it. To conclude the dissertation, these questions will be answered on a general level in the following sections.

7.1.1 The activities students are involved in that contribute to citizenship education

The first objective in this dissertation involved establishing what activities students are involved in that contribute to citizenship education. In the literature review it has been established that the activities students are involved in that contribute to citizenship education include activities that help develop their critical thinking skills, their knowledge and support of democracy, appreciation of diversity and students' commitment to social responsibility and community development.

The results of the analysis indicated that the activities identified in the literature contribute to citizenship education and that most of the activities that were identified were being offered to students at UCT. There are several organisations that exist on the UCT campus where students can become involved in a number of activities. These include student governance structures and political organisations, as well as organisations that encourage diversity interaction and organisations where students can become involved in community work and volunteering.

Students at UCT were given various opportunities to develop their critical thinking skills both inside the classroom or laboratory and outside of class. While students' critical thinking skills at the start of their studies may not necessarily be regarded as an activity, the results of the analysis revealed that students' critical thinking skills when they started their studies contribute most significantly to their current critical thinking skills. It was found that student interaction with lecturers, analyzing and evaluating information; and contributing to class discussions were the activities that significantly contribute to critical thinking skills.

In terms of knowledge and support of democracy, the analysis revealed that generally students demonstrated an understanding of democracy and 87% of the participants could provide a valid definition of democracy. It was also found that student discussions concerning politics contribute significantly to positive attitudes towards democracy; and may also contribute towards their understanding of democracy.

The activities that contribute towards positive attitudes concerning appreciation of diversity include interaction with diverse others and it was found that 73% of the participants in the survey often interacted with people who are of a different race or ethnicity than their own. While students' language skills may not necessarily be considered to be an activity, the findings revealed that English, foreign and South African language skills contribute significantly towards an appreciation of diversity.

It was also found that volunteering in community outreach activities and student involvement in development agencies and non-political organisations contribute significantly to commitment to social responsibility and community development.

Overall, the findings revealed that students at UCT are involved in several activities that contribute to citizenship and that most of these activities involve discussion and interaction amongst students, as is evident in the case of critical thinking, knowledge and support of democracy and appreciation of diversity. In this regard, activities such as interaction with lecturers, engaging in class debates and language skills were cited as evidence. Students were also involved in several organisations such as political organisations, organisations that encourage interaction with diverse others and organisations that encourage community work and volunteering

The following section looks at the extent of student participation in these activities.

7.1.2 The extent of student participation

The second objective involved determining the extent of student participation and this was measured, for example, by the amount of time that students spend on certain curricular, co-curricular activities and community activities (e.g. volunteering).

Most students indicated high participation rates in activities that contribute toward the development of critical thinking skills, as measured by the number of hours spent involved in academic activities. The majority of students (63%, representing 546 out of n=860) spent between 11 and 30 hours attending lectures, tutorials, discussions, workshops and practicals. It is interesting that although participation in academic activities such as attending lectures was high, participation in other activities that may also develop critical thinking skills, such as working with a lecturer on a research project, was not as high. The reason for this could be that in many cases lecturers tend to do research work with postgraduate students and this study was aimed at the undergraduate student population.

Involvement in academic activities was the exception and students did not participate as much in other categories of activities. The findings revealed that in general most students are not involved in activities that support democracy such as attending demonstrations and involvement in political organisations, where 75% of the participants (representing 648 out of 859) never attended a political meeting of students on campus and 92% of the participants in the survey (representing 791 out of 857) never contacted a senior university official (e.g. Vice-Chancellor) to raise an important issue or submit a complaint. These activities have been collectively referred to as communing, contacting and protesting and it was concluded that increased student involvement in certain activities involving communing, contacting and protesting such as involvement in, for example political organisations, may have the effect of decreasing students' knowledge and support of democracy.

In the case of students' appreciation of diversity, students generally interacted with diverse others, most often in cases where the differences were observable such as race or ethnicity. The results of the regression analysis revealed that student interaction with diverse others was important for developing positive attitudes towards appreciating diversity, but that increased student involvement in organisations that encourage diversity interaction may have the effect of decreasing appreciation of diversity.

Student involvement in community work and volunteering was also limited and 56% (representing 477 out of 857) of the students indicated zero hours involved in community work and volunteering. The regression analysis concluded that having students increase their involvement in organisations that are involved in volunteering and community work may in fact decrease students' commitment to social responsibility and community development.

Overall, it was concluded that student involvement in activities that contribute to the development of critical thinking skills featured most prominently and students at UCT spent a large proportion of their time engaged in academic activities. The extent of student participation in other activities related to knowledge and support of democracy, appreciation of diversity and commitment to social responsibility and community development was very limited where students reported spending very little or no time engaged in these activities.

The following section discusses student attributes of democratic citizenship and student attitudes toward democracy, diversity and commitment to social responsibility and community development.

7.1.3 Student attributes of democratic citizenship and student attitudes toward knowledge and support of democracy, appreciation of diversity and commitment to social responsibility and community development

The third objective focused on determining student attitudes toward democracy, diversity and commitment to social responsibility and community development, while the fourth objective involved determining the extent to which students have certain kinds of attributes of democratic citizenship.

It can be concluded that students at UCT showed positive attitudes toward critical thinking, knowledge and support of democracy, appreciation of diversity and commitment to social responsibility and community development. It can be concluded that although students indicated positive attitudes the extent of their involvement in activities was very limited.

In certain cases these positive attitudes could be tied to the extent of their involvement in certain activities as in the case of critical thinking where the amount of time students were involved in academic activities may account for their positive attitudes involving critical thinking. Students' involvement in activities that develop their critical thinking skills, such as interaction with lecturers and contributing to class discussions, may also account for their understanding of democracy where most of the participants could provide a valid definition of democracy. Similar to the case of critical thinking it was found that having students frequently discussing politics may lead to an increase in their knowledge and support of democracy. Although student participation in certain activities that support democracy may have been limited, they indicated that they would participate in activities such as attending political meetings and writing letters to newspapers if they were given a chance.

Regarding appreciating diversity, most of the participants showed positive attitudes towards appreciating diversity, with most students interacting with others who had observable differences from them. For example, 73% of the participants (representing 629 out of 859) indicated often interacting with others of a different race or ethnicity while only 47% (representing 402 out of 857) indicated often interacting with others of a different sexual orientation. With regard to participation in organisations that encourage interaction with diverse others, 69% of the participants (representing 589 out of 851) indicated not being a member of special interest, social and wellness groups. Similarly, most students showed positive attitudes concerning commitment to social responsibility programmes and community development but very limited involvement in community work and volunteering.

The findings of the study shed light on the importance of having students engage in various activities that help in the development of attributes of democratic citizenship and student attitudes toward knowledge and support of democracy, appreciation of diversity and commitment to social responsibility and community development. The results of the regression analysis revealed two important conclusions. On the one hand, student involvement in discussions, both inside and outside of the classroom, appears to be important for the development of attributes for citizenship since discussions help in developing students' critical thinking skills, their knowledge and support of democracy and their appreciation of diversity. In the case of critical thinking,

students engaging in class debates and interacting with lecturers and their peers help in the development of their critical thinking skills. Similarly, students discussing politics helps in deepening their knowledge and support of democracy. This was also the case when it comes to appreciation of diversity where it was found that language skills and having students interact with diverse others help in having them develop an appreciation of diversity.

On the other hand increased student involvement in communing, contacting and protesting, as well as their involvement in organisations that encourages interaction with diversity, community work and volunteering may have the effect of decreasing their knowledge and support of democracy, appreciation of diversity and commitment to social responsibility and community development, respectively. The conclusion can therefore be made that merely having students participate in specific activities such as involvement in organisations is not enough to foster positive attitudes towards citizenship.

The following section explores recommendations for future research.

7.2 Recommendations for future research

The study was successful in that the research questions involving which student activities contribute to citizenship education have been identified and the results of the analysis are generalizable but there are also a few areas of improvement that have been identified.

The independent and dependent variables in the study could be revised as was mentioned in section 6.5 and in section 7.1. This would help in avoiding confusion concerning what the dependent and independent variables in the study are. Revising these variables may also influence the findings if a similar study is conducted at another university that has a different history and background to UCT. Student priorities may differ between institutions and from the findings the conclusion can be drawn that the amount of time students are engaged in academic activities shows that students at UCT place high value on academic performance. This may not be the situation at another institution where the institution and the students may regard serving the community as an important priority. A recommendation would be adding more questions to

the questionnaire dealing with commitment to social responsibility and community development in order to result in a more even spread of questions that would be used in the analysis process which may also provide more breadth and depth to the findings.

The findings of this study shed light on student attitudes and the extent of their involvement in activities that may contribute to citizenship education and the use of a survey proved useful as the research questions were addressed. However, only using a survey did not provide the reasons why student participation in certain activities was limited. This could have been addressed if the study made use of more questions requiring students to give reasons for their lack of involvement in certain activities. This could have been achieved by making use of one of the following methods. The first method involves including more open-ended questions in the survey while another method involves making use of both a survey and interviews to establish the reasons for limited student involvement in certain activities.

Making use of more open-ended questions or interviews may also shed light on the kind of activities taking place in organisations that encourage interaction with diversity and involvement in community work and volunteering. This may also provide reasons why increased student participation in these organisations may lead to a decrease in student appreciation of diversity and students' commitment to social responsibility and community development. Such information may be useful to student development as professionals in devising programmes to increase student involvement and participation in university life. A recommendation for future research is therefore that studies of this kind involve both quantitative and qualitative research. Further qualitative research may prove useful in investigating what institutions offer in terms of curriculum and what teaching staff are doing to help institutions become effective in their role of developing democratic citizens.

This study is one of the first of its kind in South Africa and it proved to be challenging and exciting. The institution that was chosen formed part of a larger research project and the student experience at UCT may be very different to the student experience at other South African universities. In this respect it is recommended that conducting similar studies at other South African universities that have a different history and background to that of UCT may help in

determining what activities students are involved in at other universities that contribute to citizenship education. It may also help in finding out the extent of their involvement in these activities and how the student experience differs between institutions in the same higher education system. A further study may also provide insight concerning the level of differentiation within the South African higher education system.

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APPENDIX A1- Bivariate Analysis Tables for Critical Thinking

Table A1.1 Attending lectures, tutorials, discussions, workshops, practicals - Academic year cross tabulation

Number of hours	First Year	Second Year	Third Year	Fourth Year and beyond	Total
0	**1**	**0**	**0**	**1**	**2**
1-5	**39**	**9**	**13**	**9**	**70**
6-10	**46**	**27**	**32**	**15**	**120**
11-15	**39**	**47**	**45**	**9**	**140**
16-20	**65**	**54**	**38**	**4**	**161**
21-25	**62**	**26**	**30**	**6**	**124**
26-30	**50**	**43**	**17**	**10**	**120**
> 30	**57**	**33**	**21**	**11**	**122**
	359	**239**	**196**	**65**	**859**

Table A1.2 Tutoring and Mentoring

Number of hours	**Health Sciences**	**Engineering**	**Commerce**	**Humanities**	**Sciences**	**Total n**	**Percentage**
0	57	75	126	207	55	520	61%
1-5	20	39	53	101	34	247	29%
6-10	3	8	13	27	4	55	6%
11-15	3	2	4	3	3	15	2%
16-20	3	0	4	2	1	10	1%
26-30	0	0	0	2	0	2	1%
Total	86	124	200	342	97	849	100%
							849

Table A 1.3 Critical Thinking -Academic year Cross tabulation

		First Year	Second Year	Third Year	Fourth Year and above
Critical Thinking Difference	-4	0%	.8%	0%	0%
	-3	.3%	0%	0%	0%
	-2	.6%	.8%	1.0%	0%
	-1	1.7%	1.7%	.5%	0%
	0	17.2%	11.8%	8.6%	16.9%
	1	44.7%	43.5%	37.4%	32.2%
	2	26.9%	33.3%	37.4%	44.3%
	3	6.7%	6.8%	13.1%	4.5%
	4	1.9%	1.3%	2.0%	1.3%
	5	0%		0%	0.8%
Total		100.0% n=359	100.0% n=239	100.0% n=196	100.0% n=65

Table A1.4 Normality Tests for Critical Thinking

	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
Critical Thinking currently	.136	620	.000
Critical Thinking at the beginning of studies	.099	620	.000
Interaction with lecturers	.125	620	.000
Contribution to class discussion and bringing up ideas	.138	620	.000
Breaking down Information and Judging information	.136	620	.000
Fieldwork and Research	.280	620	.000
Attending lectures, studying and tutoring	.092	620	.000

a. Lilliefors Significance Correction

APPENDIX A2- Multivariate Analysis Tables for Critical Thinking

Table A2.1Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Analytical and critical thinking skills -Beginning	3.33	856	1.003	.034
	Analytical and critical thinking skills -Current	4.69	856	.765	.026
Pair 2	Ability to be clear and effective when writing - Beginning	3.46	854	1.089	.037
	Ability to be clear and effective when writing – Current	4.52	854	.893	.031
Pair 3	Ability to read and comprehend academic material -Beginning	3.40	855	1.104	.038
	Ability to read and comprehend academic material -Current	4.64	855	.842	.029

Table A2.2 Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Analytical and critical thinking skills -Beginning & Analytical and critical thinking skills –Current	856	.357	.000
Pair 2	Ability to be clear and effective when writing - Beginning & Ability to be clear and effective when writing –Current	854	.440	.000
Pair 3	Ability to read and comprehend academic material - Beginning & Ability to read and comprehend academic material –Current	855	.372	.000

Table A2.3 Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Analytical and critical thinking skills -Beginning - Analytical and critical thinking skills -Current	-1.357	1.021	.035	-1.426	-1.289	-38.903	855	.000
Pair 2	Ability to be clear and effective when writing -Beginning - Ability to be clear and effective when writing -Current	-1.058	1.062	.036	-1.129	-.987	-29.097	853	.000
Pair 3	Ability to read and comprehend academic material -Beginning - Ability to read and comprehend academic material -Current	-1.240	1.111	.038	-1.315	-1.166	-32.631	854	.000

Table A2.4 Correlation Test results for Critical Thinking - Weak, positive correlation

Variables	r	n	P-value
Contributing to a class discussion and bringing up ideas or concepts from different courses during class discussion and breaking down and judging information	0.241	843	p <0.01
Contributing to a class discussion and bringing up ideas or concepts from different courses during class discussion; and fieldwork and research	0.281	836	p <0.01
Contributing to a class discussion and bringing up ideas or concepts from different courses during class discussion; and perceived current critical thinking	0.261	839	p <0.01
Breaking down information and judging information; and fieldwork and research	0.174	846	p <0.01
Breaking down information and judging information; and interaction with lecturers	0.206	853	p <0.01
Breaking down and judging information; and perceived current critical thinking	0.186	850	p <0.01
Fieldwork and research; and perceived current critical thinking	0.146	842	p <0.01
Interaction with lecturers and perceived current critical thinking	0.253	849	p <0.01
Contributing to a class discussion and bringing up ideas or concepts from different courses during class discussion and perceived critical thinking at the beginning of student's studies	0 .073	841	p <0.05

Table A2.5 Critical Thinking Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.734	23.668	23.668	4.734	23.668	23.668	2.966	14.829	14.829
2	2.668	13.339	37.007	2.668	13.339	37.007	2.112	10.558	25.387
3	1.564	7.821	44.828	1.564	7.821	44.828	2.060	10.300	35.687
4	1.323	6.613	51.441	1.323	6.613	51.441	1.999	9.995	45.682
5	1.230	6.150	57.592	1.230	6.150	57.592	1.615	8.074	53.756
6	1.118	5.592	63.184	1.118	5.592	63.184	1.535	7.677	61.433
7	1.011	5.053	68.237	1.011	5.053	68.237	1.361	6.804	68.237
8	.809	4.045	72.281						
9	.791	3.955	76.236						
10	.735	3.676	79.912						
11	.699	3.497	83.409						
12	.615	3.073	86.482						
13	.597	2.985	89.466						
14	.407	2.035	91.501						
15	.374	1.868	93.370						
16	.318	1.588	94.958						
17	.297	1.487	96.445						
18	.280	1.400	97.845						
19	.251	1.254	99.099						
20	.180	.901	100.000						

Extraction Method: Principal Component Analysis.

Table A2.6 KMO and Bartlett's Test for Critical Thinking

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.772
Bartlett's Test of Sphericity	Approx. Chi-Square	5669.008
	d df	190
	Sig.	.000

Table A2.7 Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	102.331[a]	11	9.303	27.028	.000	.266
Intercept	153.082	1	153.082	444.754	.000	.352
Critical thinking at beginning of studies	57.532	1	57.532	167.151	.000	.169
Interaction with Lecturers	9.833	1	9.833	28.568	.000	.034
Class discussion	1.373	1	1.373	3.989	.046	.005
Academic analysis and evaluation	4.349	1	4.349	12.635	.000	.015
In and out of class academic activities	.347	1	.347	1.009	.315	.001
Participation in Academic Activities	.020	1	.020	.057	.811	.000
Faculty	6.097	5	1.219	3.543	.004	.021
Academic Year	10.859	6	1.810	5.342	.000	.038
Gender	.317	1	.317	.906	.341	.001
Population Group	4.488	5	.898	2.593	.024	.016
Nationality	.846	2	.423	1.211	.299	.003
Error	281.895	819	.344			
Total	17962.667	831				
Corrected Total	384.226	830				

Dependent Variable: Current critical thinking

a. R Squared = .266 (Adjusted R Squared = .256)

APPENDIX A3- Multiple Regression Tables for Critical Thinking

Table A3.1 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.496[a]	.246	.241	.58704	.246	53.089	5	814	.000

Predictors: (Constant), Fieldwork and Research, Critical Thinking at the beginning, Academic analysis and evaluation

a. Breaking down and Judging information, Contributed to class discussion and brought up ideas, Interaction with lecturers

Table A3.2 ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	91.479	5	18.296	53.089	.000[b]
	Residual	280.536	814	.345		
	Total	372.015	819			

a. Dependent Variable: Current Critical Thinking
b. Predictors: (4 evaluation, Class discussion, Interaction with lecturers

Table A3.3 Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	2.808	.118		23.718	.000	2.576	3.041
Critical Thinking at the beginning of studies	.295	.023	.386	12.604	.000	.249	.341
Interaction with lecturers	.101	.023	.166	4.442	.000	.056	.146
Class discussion	.052	.018	.107	2.932	.003	.017	.087
Academic analysis and evaluation	.074	.018	.130	4.081	.000	.038	.109
In and out of class academic activities	.026	.022	.039	1.172	.242	-.018	.070

a. Dependent Variable: Current Critical Thinking

Table A3.4. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.386[a]	.149	.148	.63625	.149	140.488	1	801	.000
2	.460[b]	.212	.210	.61281	.063	63.463	1	800	.000
3	.485[c]	.235	.232	.60402	.023	24.447	1	799	.000
4	.493[d]	.244	.240	.60108	.008	8.846	1	798	.003

a. Predictors: (Constant), Critical Thinking at the beginning

b. Predictors: (Constant), Critical Thinking at the beginning of studies, Interaction with Lecturers

b. Predictors: (Constant), Critical Thinking at the beginning of studies , Interaction with Lecturers, Academic analysis and evaluation

c. Predictors: (Constant), Critical Thinking at the beginning of studies, Interaction with Lecturers, Academic analysis and evaluation, Class discussionn.

Table A3.5 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	56.872	1	56.872	140.488	.000[c]
	Residual	324.281	801	.405		
	Total	381.153	802			
2	Regression	80.704	2	40.352	107.453	.000[d]
	Residual	300.449	800	.376		
	Total	381.153	802			
3	Regression	89.623	3	29.874	81.884	.000[e]
	Residual	291.530	799	.365		
	Total	381.153	802			
4	Regression	92.819	4	23.205	64.227	.000[f]
	Residual	288.334	798	.361		
	Total	381.153	802			

a. Dependent Variable: Critical Thinking currently

b. Weighted Least Squares Regression - Weighted by wt2

c. Predictors: (Constant), Critical Thinking at the beginning of studies

d. Predictors: (Constant), Critical Thinking at the beginning of studies, Interaction with Lecturers

e. Predictors: (Constant), Critical Thinking at the beginning of studies, Interaction with

f. Lecturers , Academic analysis and evaluation

g. Predictors: (Constant), Critical Thinking at the beginning of studies, Interaction with Lecturers, Academic analysis and evaluation, Class discussion

Table A3.6 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3.622	.088		41.292	.000	3.450	3.795
	Critical Thinking at the beginning	.294	.025	.386	11.853	.000	.245	.343
2	(Constant)	3.200	.100		32.084	.000	3.004	3.396
	Critical Thinking at the beginning	.300	.024	.394	12.538	.000	.253	.347
	Interaction with Lecturers	.152	.019	.250	7.966	.000	.114	.189
3	(Constant)	2.866	.119		24.015	.000	2.632	3.100
	Critical Thinking at the beginning	.301	.024	.395	12.751	.000	.254	.347
	Interaction with Lecturers	.132	.019	.218	6.881	.000	.094	.170
	Academic analysis and evaluation	.089	.018	.156	4.944	.000	.054	.125
4	(Constant)	2.844	.119		23.899	.000	2.610	3.077
	Critical Thinking at the beginning	.294	.024	.386	12.498	.000	.248	.341
	Interaction with Lecturers	.099	.022	.163	4.470	.000	.055	.142
	Academic analysis and evaluation	.079	.018	.139	4.333	.000	.043	.115
	Class discussion	.053	.018	.110	2.974	.003	.018	.088

a. Dependent Variable: Current Critical Thinking

b. Weighted Least Squares Regression - Weighted by wt2

APPENDIX B1-Bivariate Analysis Tables for Support for Democracy

Table B1.1 Attended a political meeting of students on campus (eg. Mass meeting)

	First Year	Second Year	Third Year	Fourth year and above	Total n	%
Often	12	11	3	2	28	3%
Several times	19	9	11	2	41	5%
Once or twice	51	45	40	6	142	17%
Never, but I probably would if I had a chance	152	90	77	20	339	39%
I would never do this	128	83	65	33	309	36%
Total	362	238	196	63	859	100%

Table B1.2 Contacted a senior university official (e.g. Vice-Chancellor) to raise an important issue or submit a complaint-Academic year Cross tabulation

	First Year	Second Year	Third Year	Fourth year and above	Total n	%
Often	3	5	1	1	10	1%
Several times	1	3	2	0	6	1%
Once or twice	23	13	6	8	50	6%
Never, but I probably would if I had a chance	250	148	129	34	561	65%
I would never do this	84	68	56	22	230	27%
Total	361	237	194	65	857	100%

Table B1.3 Voting-Academic year Cross tabulation

	First Year	Second Year	Third Year	Fourth year and above	Total n	%
I voted in the election	102	90	86	37	315	37%
I was too young to vote	127	28	6	1	162	19%
I chose not to vote	39	37	26	4	106	12%
I did not vote for some other reason	78	72	71	19	240	28%
Don't know/ can't remember	11	12	6	3	32	4%
Total	357	239	195	64	855	100%

Table B1.4 Governing bodies - Faculty Cross tabulation

	Health Sciences	Engineering	Commerce	Humanities	Sciences	Total n	%
Official leader	2	6	12	14	4	38	5%
Active member	4	10	10	20	11	55	6%
Inactive member	3	2	4	10	3	23	3%
Not a member	75	105	172	285	76	713	84%
Don't know	1	3	2	10	3	19	2%
Total	85	126	200	340	97	848	100%

Table B1.5 Political party- Academic year Cross tabulation

	First Year	Second Year	Third Year	Fourth Year and above	Total n	%
Official leader	2	3	0	0	5	1%
Active member	6	7	4	2	19	2%
Inactive member	12	13	10	3	38	5%
Not a member	332	208	171	58	769	90%
Don't know	8	6	5	1	20	2%
Total	360	237	190	64	851	100%

Table B 1.6 KMO and Bartlett's Test for support of democracy

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.883
Bartlett's Test of Sphericity	Approx. Chi-Square	9247.881
	Df	300
	Sig.	.000

APPENDIX B2- Multivariate Analysis Tables for Support for Democracy

Table B 2.1 Democracy Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.404	29.617	29.617	7.404	29.617	29.617	4.410	17.639	17.639
2	2.347	9.389	39.006	2.347	9.389	39.006	3.760	15.038	32.677
3	2.026	8.105	47.111	2.026	8.105	47.111	2.206	8.824	41.501
4	1.311	5.243	52.353	1.311	5.243	52.353	2.197	8.787	50.288
5	1.209	4.836	57.190	1.209	4.836	57.190	1.644	6.574	56.862
6	1.063	4.251	61.440	1.063	4.251	61.440	1.111	4.443	61.305
7	1.014	4.054	65.494	1.014	4.054	65.494	1.047	4.189	65.494
8	.978	3.911	69.406						
9	.854	3.416	72.821						
10	.841	3.365	76.187						
11	.647	2.587	78.774						
12	.575	2.300	81.074						
13	.544	2.176	83.250						
14	.515	2.061	85.311						
15	.482	1.928	87.240						
16	.456	1.824	89.063						
17	.429	1.718	90.781						
18	.375	1.501	92.282						
19	.346	1.383	93.665						
20	.324	1.297	94.962						
21	.318	1.271	96.232						
22	.297	1.186	97.419						
23	.283	1.133	98.552						
24	.233	.932	99.484						
25	.129	.516	100.000						

Extraction Method: Principal Component Analysis.

Table B2.2 Correlation Test results for Democracy - Weak, positive correlation

Variables	r	n	P-value
Student involvement in communing, contacting and protesting	0.277	809	p <0.01
Student involvement in communing, contacting and protesting; and voting and participation in governing bodies	0.148	828	p <0.01
Rejection of non-democratic alternatives and voting and participation in governing bodies	0.086	848	p <0.05

Table B2.3 Correlation test results for Democracy- Weak, negative correlation

Variables	r	n	P-value
Frequency of political discussions and rejection of non-democratic alternatives	-0.133	844	p <0.01
Frequency of political discussions and student involvement in political organisations	-0.207	829	p <0.01
Frequency of political discussions; and voting and participation in governing bodies	-0.145	846	p <0.01
Knowledge and support for democracy and rejection of non-democratic alternatives	-0.118	841	p <0.01
Knowledge and support for democracy and student involvement in political organisations	-0.180	825	p <0.01
Knowledge and support for democracy; and voting and participation in governing bodies	-0.089	844	p <0.01

Table B 2.4 Tests of Between-Subjects Effects

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	310.159[a]	11	28.196	34.416	.000	.347
Intercept	74.393	1	74.393	90.804	.000	.113
Student involvement in communing, contacting and protesting	7.687	1	7.687	9.383	.002	.013
Frequency of political discussions	125.352	1	125.352	153.002	.000	.177
Rejection of non-democratic rule	.252	1	.252	.307	.580	.000
Participation in political organisations	.960	1	.960	1.171	.279	.002
Voting and participation in governing bodies	.018	1	.018	.022	.881	.000
Defining democracy	.041	1	.041	.051	.822	.000
Faculty	24.203	5	4.841	5.908	.000	.040
Academic Year	7.474	6	1.246	1.476	.184	.012
Gender	.308	1	.308	.364	.547	.001
Population Group	14.148	5	2.830	3.395	.005	.023
Nationality	5.546	2	2.773	3.294	.038	.009
Error	583.326	712	.819			
Total	13778.778	724				
Corrected Total	893.485	723				

Dependent Variable: Knowledge and support of Democracy

a. R Squared = .347 (Adjusted R Squared = .337)

APPENDIX B3- Multiple Regression Tables for Support for Democracy

Table B3.1 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.566[a]	.321	.315	.91752	.321	53.854	6	684	.000

a. Predictors: (Constant), Democracy definitions, Frequency of political discussions, Rejection of non-democratic alternatives, Voting and participation in governing bodies, Student Involvement in Political Organisations, Student involvement in communing, contacting and protesting

Table B3.2 ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	272.023	6	45.337	53.854	.000[b]
	Residual	576.238	684	.842		
	Total	848.261	690			

a. Dependent Variable: Knowledge and support of democracy

b. Predictors: (Constant), Democracy definitions, Frequency of political discussions, Rejection of non-democratic alternatives, Voting and participation in governing bodies, Student Involvement in Political Organisations, Student involvement in communing, contacting and protesting

Table B3.3 Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	4.275	.478		8.949	.000	3.337	5.213
	Student involvement in communing, contacting and protesting	-.275	.080	-.138	-3.416	.001	-.433	-.117
	Frequency of political discussions	.409	.033	.471	12.495	.000	.345	.473
	Rejection of non-democratic alternatives	-.026	.040	-.021	-.661	.509	-.104	.052
	Student Involvement in Political Organisations	-.029	.101	-.010	-.285	.776	-.228	.170
	Voting and participation in governing bodies	-.014	.027	-.017	-.544	.586	-.066	.038
	Democracy Definitions	.001	.001	.022	.702	.483	-.001	.003

a. Dependent Variable: Knowledge and support of democracy

Table B3.4. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.551[a]	.304	.303	.74201	.304	338.555	1	776	.000
2	.564[b]	.318	.317	.73448	.015	17.013	1	775	.000

a. Predictors: (Constant), Frequency of political discussions

b. Predictors: (Constant), Frequency of political discussions, Student involvement in communing, contacting and protesting

Table B3.5 .ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	186.402	1	186.402	338.555	.000[b]
	Residual	427.699	777	.551		
	Total	614.102	778			
2	Regression	195.580	2	97.790	181.273	.000[c]
	Residual	418.521	776	.539		
	Total	614.102	778			

a. Dependent Variable: Knowledge an support of democracy

b. Predictors: (Constant), Frequency of political discussions

c. Predictors: (Constant), Frequency of political discussions, Student involvement in communing, contacting and protesting

Table B3.6 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2.326	.072		32.311	.000	2.184	2.467
	Frequency of political discussions	.386	.021	.551	18.400	.000	.344	.427
2	(Constant)	3.480	.289		12.049	.000	2.913	4.047
	Frequency of political discussions	.328	.025	.469	13.126	.000	.279	.377
	Student involvement in communing, contacting and protesting	-.231	.056	-.147	-4.125	.000	-.340	-.121

a. Dependent Variable: Knowledge and support of democracy

APPENDIX C1- Bivariate Analysis Tables for Appreciation of Diversity

Table C1.1 Race or ethnicity interaction-Population group cross tabulation

	Black	Coloured	Indian	White	Unknown	Total n	%
Never	5	1	2	12	5	25	3%
Seldom	75	21	13	72	24	205	24%
Often	188	109	50	212	70	629	73%
Total	268	131	65	296	99	859	100%

Table C1.2 Sexual orientation-Population Group cross tabulation

	Black	Coloured	Indian	White	Unknown	Total n	%
Never	28	8	11	28	18	93	11%
Seldom	96	54	31	148	33	362	42%
Often	145	69	23	119	46	402	47%
Total	269	131	65	295	97	857	100%

Table C1.3 Economic or social class-Population Group cross tabulation

	Black	Coloured	Indian	White	Unknown	Total n	%
Never	11	5	5	13	4	38	5%
Seldom	67	34	16	101	33	251	29%
Often	191	92	43	180	63	569	66%
Total	269	131	64	294	100	858	100%

Table C1.4 Special interest, social and wellness groups-Academic year cross tabulation

	First Year	Second Year	Third Year	Fourth Year and above	Total n	%
Official leader	8	7	11	1	27	3%
Active member	47	27	20	7	101	12%
Inactive member	48	34	20	6	108	13%
Not a member	243	160	138	48	589	69%
Don’t know	12	9	4	1	26	3%
Total	358	237	193	63	851	100%

Table C1.5 Diversity Appreciation of diversity-Academic year Cross tabulation

		First Year	Second Year	Third Year	Fourth Year and above
Appreciation of diversity	-3	0.6%	0.4%	0%	0.6%
	-2	0.8%	0.4%	0%	0%
	-1	2.2%	0.8%	2.1%	0.6%
	0	41.4%	41.8%	41.5%	39.3%
	1	31.9%	30%	23.1%	18.9%
	2	16.1%	16.5%	21.5%	34.8%
	3	4.4%	7.2%	8.2%	3.2%
	4	1.9%	3%	2.6%	1.3%
	5	0.6%	0%	1%	1.3%
Total		100%	100%	100%	100%
n		358	237	193	63

APPENDIX C2- Multivariate Analysis Tables for Appreciation of Diversity

Table C2.1 Paired Samples Statistics for Appreciation of Diversity

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Ability to appreciate, tolerate and understand diversity-Beginning	4.06	856	1.245	.043
	Ability to appreciate, tolerate and understand diversity-Current	4.99	856	.937	.032
Pair 2	Ability to appreciate cultural and global diversity (e.g., ethnicity, nationality) – Beginning	4.07	851	1.164	.040
	Ability to appreciate cultural and global diversity (e.g., ethnicity, nationality) – Current	4.77	851	.982	.034

Table C2.2. Paired Samples Correlations for Appreciation of Diversity

		N	Correlation	Sig.
Pair 1	Ability to appreciate, tolerate and understand diversity-Beginning & Ability to appreciate, tolerate and understand diversity-Current	856	.465	.000
Pair 2	Ability to appreciate cultural and global diversity (e.g., ethnicity, nationality) - Beginning & Ability to appreciate cultural and global diversity (e.g., ethnicity, nationality) – Current	851	.549	.000

Table C2.3 Paired Samples Test for Appreciation of Diversity

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Ability to appreciate, tolerate and understand diversity-Beginning - Ability to appreciate, tolerate and understand diversity-Current	-.928	1.159	.040	-1.006	-.850	-23.418	855	.000
Pair 2	Ability to appreciate cultural and global diversity (e.g., ethnicity, nationality) -Beginning - Ability to appreciate cultural and global diversity (e.g., ethnicity, nationality) -Current	-.703	1.031	.035	-.773	-.634	-19.900	850	.000

Table C2.4 Correlation test results for Appreciation of Diversity- Weak, positive correlations

Variables	**r**	**N**	**P-value**
Interaction with diverse others and appreciation of diversity	0.181	868	$p < 0.0$
Interaction with diverse others and interaction with others who have a health or disability problem	0.419	875	$p < 0.0$
Interaction with diverse others and understanding of South African languages	0.157	869	$p < 0.01$
Appreciation of diversity and understanding of Foreign languages	0.141	869	$p < 0.01$
Appreciation of diversity and understanding of South African languages	0.153	874	$p < 0.01$
Understanding of Foreign languages and Understanding of South African languages	0.109	872	$p < 0.01$
Understanding of Foreign languages and English Language	0.123	870	$p < 0.01$
Interaction with others who have a health or disability problem and Understanding of South African languages	0.086	878	$p < 0.05$
Understanding of South African languages and English Language	0.075	876	$p < 0.05$

Table C2.5 Correlation test results for Appreciation of Diversity- Weak, negative correlations

Variables	r	n	P-value
Interaction with diverse others and student involvement in organisations that encourage diversity	-0.92	857	p <0.01
Appreciation of diversity and Student involvement in organisations that encourage diversity	-0.136	860	p <0.01
Understanding of foreign languages and Student involvement in organisations that encourage diversity	-0.087	856	p <0.05
Interaction with others who have a health or disability problem and English Languages	-0.073	878	p <0.05
Interaction with others who have a health or disability problem and student involvement in organisations that encourage diversity	-0.082	868	p <0.05
English languages and student involvement in organisations that encourage diversity	-0.127	862	p <0.01

Table C2.6 Appreciation of Diversity -Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.221	20.102	20.102	4.221	20.102	20.102	3.407	16.221	16.221
2	3.071	14.623	34.725	3.071	14.623	34.725	2.646	12.599	28.821
3	1.871	8.907	43.632	1.871	8.907	43.632	1.856	8.838	37.658
4	1.651	7.862	51.495	1.651	7.862	51.495	1.852	8.820	46.479
5	1.301	6.197	57.692	1.301	6.197	57.692	1.835	8.737	55.216
6	1.238	5.896	63.588	1.238	5.896	63.588	1.647	7.841	63.057
7	1.124	5.354	68.942	1.124	5.354	68.942	1.236	5.885	68.942
8	.985	4.689	73.631						
9	.782	3.724	77.355						
10	.703	3.345	80.701						
11	.672	3.200	83.901						
12	.578	2.751	86.652						
13	.499	2.377	89.030						
14	.447	2.128	91.158						
15	.379	1.806	92.964						
16	.349	1.660	94.624						
17	.318	1.516	96.140						
18	.298	1.420	97.560						
19	.190	.907	98.466						
20	.172	.821	99.287						
21	.150	.713	100.000						

Extraction Method: Principal Component Analysis.

Table C2.7 KMO and Bartlett's Test for appreciation of diversity

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.700
Bartlett's Test of Sphericity	Approx. Chi-Square	7024.475
	Df	210
	Sig.	.000

Table C2.8Tests of Between-Subjects Effects

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	118.281[a]	11	10.753	17.966	.000	.197
Intercept	82.157	1	82.157	137.266	.000	.145
Interaction with Diverse Others	20.016	1	20.016	33.442	.000	.040
Foreign Languages skills	3.849	1	3.849	6.431	.011	.008
Interaction with others who have a health or disability condition	2.006	1	2.006	3.352	.067	.004
South African Language skills	3.937	1	3.937	6.577	.011	.008
English Language skills	43.161	1	43.161	72.113	.000	.082
Student involvement in organisations that encourage diversity	4.002	1	4.002	6.686	.010	.008
Faculty	13.841	5	2.768	4.625	.000	.028
Academic year	6.826	6	1.138	1.871	.083	.014
Gender	4.020	1	4.020	6.616	.010	.008
Population Group	13.242	5	2.648	4.419	.001	.027
Nationality	4.426	2	2.213	3.640	.027	.009
Error	483.605	808	.599			
Total	17781.778	820				
Corrected Total	601.886	819				

Dependent Variable: Appreciation of Diversity

a. R Squared = .197 (Adjusted R Squared = .186)

APPENDIX C3- Multiple Regression Tables for Appreciation of Diversity

Table C3.1 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.425[a]	.180	.174	.77353	.180	28.760	6	784	.000

a. Predictors: (Constant), Student involvement in diversity organisations, Foreign Language skills, Interaction with others who have a health or disability condition , South African Language skills, English Language skills, Interaction with Diverse Others

Table C3.2 ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	103.251	6	17.208	28.760	.000[b]
	Residual	469.423	785	.598		
	Total	572.674	791			

a. Dependent Variable: Appreciation of Diversity

b. Predictors: (Constant), Student involvement in diversity organisations, Foreign Language skills, Interaction with others who have a health or disability condition , South African Language skills, English Language skills, Interaction with Diverse Others

Table C3.3 Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2.839	.253		11.206	.000	2.342	3.337
	Interaction with Diverse Others	.193	.031	.230	6.201	.000	.132	.255
	Foreign Language skills	.064	.022	.095	2.898	.004	.021	.107
	Interaction with others who have a health or disability condition	-.031	.025	-.046	-1.252	.211	-.079	.018
	South African Language skills	.056	.021	.087	2.642	.008	.015	.098
	English Language skills	.265	.029	.296	9.018	.000	.208	.323
	Student involvement in organisations that encourage diversity	-.122	.042	-.095	-2.886	.004	-.206	-.039

a. Dependent Variable: Appreciation of Diversity

Table C3.4 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.316[a]	.100	.099	.80811	.100	87.405	1	789	.000
2	.392[b]	.154	.152	.78400	.054	50.309	1	788	.000
3	.405[c]	.164	.161	.77952	.011	10.100	1	787	.002
4	.414[d]	.172	.167	.77665	.007	6.830	1	786	.009
5	.423[e]	.179	.173	.77381	.007	6.769	1	785	.009

a. Predictors: (Constant), English Language skills

b. Predictors: (Constant), English Language skills, Interaction with Diverse Others

c. Predictors: (Constant), English Language skills, Interaction with Diverse Others, Foreign Language skills

d. Predictors: (Constant), English Language skills, Interaction with Diverse Others, Foreign Language skills, Student involvement in organisations that encourage diversity

e. Predictors: (Constant), English Language skills, Interaction with Diverse Others, Foreign Language skills, Student involvement in organisations that encourage diversity, South African Language skills

Table C3.5 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	57.079	1	57.079	87.405	.000[b]
	Residual	515.595	790	.653		
	Total	572.674	791			
2	Regression	88.002	2	44.001	71.586	.000[c]
	Residual	484.672	789	.615		
	Total	572.674	791			
3	Regression	94.139	3	31.380	51.642	.000[d]
	Residual	478.535	788	.608		
	Total	572.674	791			
4	Regression	98.259	4	24.565	40.725	.000[e]
	Residual	474.415	787	.603		
	Total	572.674	791			
5	Regression	102.312	5	20.462	34.173	.000[f]
	Residual	470.362	786	.599		
	Total	572.674	791			

a. Dependent Variable: Appreciation of Diversity

b. Predictors: (Constant), English Language skills

c. Predictors: (Constant), English Language skills, Interaction with Diverse Others

d. Predictors: (Constant), English Language skills, Interaction with Diverse Others, Foreign Language skills

e. Predictors: (Constant), English Language skills, Interaction with Diverse Others, Foreign Language skills, Student involvement in organisations that encourage diversity

f. Predictors: (Constant), English Language skills, Interaction with Diverse Others, Foreign Language skills, Student involvement in organisations that encourage diversity, South African Language skills

Table C3.6 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3.305	.142		23.340	.000	3.027	3.583
	English Language skills	.283	.030	.316	9.349	.000	.223	.342
2	(Constant)	2.502	.178		14.053	.000	2.153	2.852
	English Language skills	.291	.029	.325	9.921	.000	.234	.349
	Interaction with Diverse Others	.196	.028	.233	7.093	.000	.142	.250
3	(Constant)	2.398	.180		13.319	.000	2.045	2.751
	English Language skills	.281	.029	.314	9.576	.000	.223	.339
	Interaction with Diverse Others	.197	.027	.234	7.174	.000	.143	.251
	Foreign Language skills	.070	.022	.104	3.178	.002	.027	.113
4	(Constant)	2.866	.254		11.303	.000	2.369	3.364
	English Language skills	.272	.029	.304	9.257	.000	.215	.330
	Interaction with Diverse Others	.188	.028	.224	6.837	.000	.134	.242
	Foreign Language skills	.068	.022	.101	3.087	.002	.025	.111
	Student involvement in organisations that encourage diversity	-.111	.042	-.086	-2.613	.009	-.194	-.028
5	(Constant)	2.824	.253		11.155	.000	2.327	3.321
	English Language skills	.267	.029	.298	9.081	.000	.209	.325
	Interaction with Diverse Others	.176	.028	.209	6.310	.000	.121	.230
	Foreign Language skills	.063	.022	.094	2.873	.004	.020	.106
	Student involvement in organisations that encourage diversity	-.120	.042	-.094	-2.841	.005	-.204	-.037
	SA Language skills	.056	.021	.086	2.602	.009	.014	.097

a. Dependent Variable: Appreciation of Diversity

APPENDIX D1-Bivariate Analysis Tables for Commitment to social responsibility and community development

Table D1.1 Volunteering in community outreach activities- Academic year cross tabulation

Number of hours	First Year	Second Year	Third Year	Fourth Year and above	Total n	%
0	216	118	109	34	477	56%
1-5	106	81	69	28	284	33%
6-10	25	25	13	2	65	7.5%
11-15	6	11	1	0	18	2%
16-20	3	2	3	0	8	1%
21-25	0	1	1	1	3	0.3%
26-30	1	0	0	0	1	0.1%
>30	1	0	0	0	1	0.1%
Total	358	238	196	65	857	100%

Table D1.2 KMO and Bartlett's Test for Commitment to social responsibility and community development

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.618
Bartlett's Test of Sphericity	Approx. Chi-Square	150.851
	df	6
	Sig.	.000

APPENDIX D2-Multivariate Analysis Tables for Commitment to social responsibility and community development

Table D2.1 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.542	38.543	38.543	1.542	38.543	38.543
2	.896	22.403	60.946			
3	.858	21.457	82.404			
4	.704	17.596	100.000			

Extraction Method: Principal Component Analysis.

Table D2.2 Tests of Between-Subjects Effect

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	98.359[a]	7	14.051	12.290	.000	.092
Intercept	625.786	1	625.786	547.352	.000	.391
Volunteering	2.850	1	2.850	2.493	.115	.003
Involvement in community organisations	24.749	1	24.749	21.647	.000	.025
Faculty	46.192	5	9.238	8.081	.000	.045
Academic year	7.855	6	1.309	1.100	.360	.008
Gender	15.939	1	15.939	13.584	.000	.016
Population Group	1.766	5	.353	.295	.916	.002
Nationality	1.851	2	.925	.777	.460	.002
Error	972.947	851	1.143			
Total	20928.000	859				
Corrected Total	1071.306	858				

Dependent Variable: Commitment to social responsibility and community development

a. R Squared = .092 (Adjusted R Squared = .084)

APPENDIX D3-Multiple Regression Tables for Commitment to social responsibility and community development

Table D3.1 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.229[a]	.052	.050	1.08611	.052	22.801	2	824	.000

a. Predictors: (Constant), Student Involvement in Development Agencies and Non-Political Organisations, Volunteering in community outreach activities

Table D3.2 ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	53.794	2	26.897	22.801	.000[b]
	Residual	972.455	824	1.180		
	Total	1026.249	826			

a. Dependent Variable: Commitment to social responsibility and community development

b. Predictors: (Constant), Student Involvement in Development Agencies and Non-Political Organisations, Volunteering in community outreach activities

Table D3.3 Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	5.837	.252		23.181	.000	5.343	6.331
	Volunteering in community outreach activities	.094	.045	.074	2.067	.039	.005	.182
	Student Involvement in Development Agencies and Non-Political Organisations	-.332	.061	-.194	-5.406	.000	-.453	-.212

a. Dependent Variable: Commitment to social responsibility and community development

Table D3.4 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.218[a]	.048	.046	1.08826	.048	41.166	1	825	.000
2	.229[b]	.052	.050	1.08611	.005	4.273	1	824	.039

a. Predictors: (Constant), Student Involvement in Development Agencies and Non-Political Organisations

b. Predictors: (Constant), Student Involvement in Development Agencies and Non-Political Organisations, Volunteering in community outreach activities

Table D3.5.ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	48.753	1	48.753	41.166	.000[b]
	Residual	977.495	825	1.184		
	Total	1026.249	826			
2	Regression	53.794	2	26.897	22.801	.000[c]
	Residual	972.455	824	1.180		
	Total	1026.249	826			

a. Dependent Variable: Commitment to social responsibility and community development

b. Predictors: (Constant), Student Involvement in Development Agencies and Non-Political Organisations

c. Predictors: (Constant), Student Involvement in Development Agencies and Non-Political Organisations, Volunteering in community outreach activities

Table D3.6 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	6.133	.208		29.554	.000	5.726	6.540
	Student Involvement in Development Agencies and Non-Political Organisations	-.374	.058	-.218	-6.416	.000	-.488	-.259
2	(Constant)	5.837	.252		23.181	.000	5.343	6.331
	Student Involvement in Development Agencies and Non-Political Organisations	-.332	.061	-.194	-5.406	.000	-.453	-.212
	Volunteering in community outreach activities	.094	.045	.074	2.067	.039	.005	.182

a. Dependent Variable: Commitment to social responsibility and community development

APPENDIX E-Consent form and Questionnaire

The UCT Undergraduate Student Experience Survey

Student Information Sheet and Consent Form

What is the Student Experience Survey?

The survey is part of a broader initiative that seeks to enhance student life at UCT. It is commissioned and led by Professor Crain Soudien, Deputy Vice-Chancellor of UCT.

Who conducts the Survey?

UCT is collaborating with the University of California-Berkeley, USA, and the Centre for Higher Education and Transformation, SA, for the survey.

What is the purpose and value of the Student Experience survey?

The purpose of the survey is to help us to better understand the undergraduate student experience at UCT. The information will hopefully assist us to improve policies, services and practices that impact on students.

Who participates in the survey? What does participation entail?

This survey invites participation from all undergraduate students, LLB students, Postgraduate Diploma and Honours students. Participation involves completing the on-line questionnaire which takes about 25 minutes to complete. The questionnaire has eight sections: 1) Academic Engagement, 2) Student Life and Goals, 3) Campus Climate, 4) Overall Satisfaction and Agreement, 5) Uses of Technology, 6) Political and Social Engagement, 7) Student Development and Support, and 8) Biographical information.

What about confidentiality, privacy and anonymity?

You will be asked to provide your student number, but your identity remains confidential and anonymous. The analysis of the data will also draw on the official university records such as your faculty, year of study, school attended, residence status, and academic performance. However, the results of the study will be reported only as aggregate data and it will not be possible for anyone to identify you as a respondent.

Is participation voluntary or compulsory?

Your participation in this survey is entirely voluntary and your informed consent is therefore required. You may withdraw your participation at any point.

Are there incentives for participation?

We are offering a few small prizes to participants who fully complete the survey. To participate in the competition you must agree to enter your name and cell number into the draw so that you can be identified and contacted if you are successful. The prizes will include: cell phones, book vouchers and memory sticks and the like.

Where can I get more information, make comments or complain?

You can contact Ms Edwina Brooks, the Project Manager, via email: Edwina.Brooks@uct.ac.za or via telephone at (021) 6503924.

CONSENT TO PARTICIPATE

a. I have read this document and understand the information.
b. I understand that once I commence the survey, I may withdraw at any time.
c. By supplying my student number, I voluntarily agree t to the disclosure of some of my background information and academic records for the purpose of this survey.
d. I understand that my information will be made anonymous and it will not be identifiable or traceable to me and reported in an aggregate format only, so that my identity remains private, anonymous and confidential.

I understand the above, and agree to l participate voluntarily in this survey. (Please tick)

Agree ☐ *Disagree* ☐

If you would also like to participate in the competition, please provide your details below:

_____ _____

Name *Cell number*

Questionnaire

PART 1: ACADEMIC ENGAGEMENT

1.1. How many hours do you spend on estimate <u>in a typical week</u> on the following activities?

[0 1-5 6-10 11-15 16-20 21-25 26-30 More than 30]

Attending lectures, tutorials, discussions, workshops, practicals
Studying and other academic activities outside of class
Tutoring or mentoring
Doing fieldwork, practica, internships, as part of academic work
Volunteering in community outreach activities, outside of academic work
Attending movies, concerts, sports, or other entertainment events
Participating in physical exercise, recreational sports, or physically active hobbies
Participating in student societies or organisations
Participating in spiritual or religious activities
Pursuing a recreational or creative interest
Paid employment
Family responsibilities
Partying, clubbing and socialising with friends
Travelling from and to university
Playing videogames, watching tv and series, YouTube, listening to music, and using social media e.g., facebook
Sleeping (number of hours per day)

1.2. Thinking back over your course work during this academic year, how often were you required to do the following?

[Never /Rarely/Occasionally /Somewhat often /Often /Very often]

Recognise or recall specific facts, terms, formulae and concepts
Explain methods, ideas, or concepts and use them to solve problems
Break down material into component parts or arguments into assumptions to see the basis for different outcomes or conclusions
Judge the value of information, ideas, actions, and conclusions based on the soundness of sources, methods and reasoning
Create or generate new ideas, products, or ways of understanding
Use facts and examples to support your opinion
Incorporate ideas or concepts from different courses when completing assignments
Examine how others gather and interpret data and assess the soundness of their conclusions
Reconsider your own position on a topic after assessing the arguments of others

1.3. How often during the current academic year have you done the following?

[Never /Rarely/ Occasionally / Somewhat often /Often / Very often]

Contributed to a class discussion

Brought up ideas or concepts from different courses during class discussion

Asked a question in class

Found a course so interesting that you did more work than was required

Chosen challenging courses when possible even though you might lower your marks by doing so

Submitted an assignment of more than 20 pages (> 10,000 words)

Submitted an assignment of 6 – 20 pages (3,000 – 10,000 words)

Submitted an assignment of 3 – 6 pages (1,500 - 3000 words)

Submitted an assignment of < 3 pages (1,500 words or less)

Used more than five reference sources in a paper

Applied ideas or principles from a class to understand a problem or event outside of class

Raised your own academic standard due to the high expectations of a lecturer

Extensively revised a paper at least once before submitting it to be marked

Studied in a group with other students outside of class

Helped a fellow student better understand the course materials when studying together

1.4. How often during the current academic year have you done each of the following?

[Never / Rarely / Occasionally / Somewhat often /Often / Very often]

Submitted an assignment late

Gone to lectures/tutorials without completing assigned reading

Gone to lectures/tutorials unprepared

Skipped lectures/tutorials

1.5. In terms of contact with academic staff, how often have you done each of the following during the current academic year?

[Never / Rarely / Occasionally / Somewhat often /Often / Very often]

Taken a small research-oriented seminar with a lecturer

Communicated with a lecturer by email or in person

Talked with the lecturer outside of class about issues and concepts derived from a course

Interacted with a lecturer during lecture or class sessions

Worked with a lecturer on a research or creative activity other than course work

Sought academic help from a lecturer when needed

1.6. On average, how much of your assigned course reading have you actually completed during this academic year?

[0-10%/11-20%/21-30%/31-40%/41-50%/51-60%/61-70%/71-80%/81-90%/91-100%]

1.7. Please rate your level of proficiency/ability in the following areas when you started at UCT and now.

[When you started here - Very poor/Poor/Fair/Good/Very good/Excellent]

[Current ability level - Very poor/Poor/Fair/Good/Very good/Excellent]

Analytical and critical thinking skills

Ability to be clear and effective when writing

Ability to read and comprehend academic material

English language skills

South African language skills other than English

Foreign language skills

Understanding of a specific field of study

Quantitative (numeracy, maths and stats) skills

Ability to speak clearly and effectively

Ability to understand international perspectives

Leadership skills

Computer skills

Internet skills

Library research skills

Other research skills

Ability to prepare and make a presentation

Interpersonal (social) skills

Ability to appreciate, tolerate and understand diversity (e.g., race, gender, class, beliefs, disability, sexual orientation)

Ability to appreciate fine arts (painting, music, drama, dance)

Ability to appreciate cultural and global diversity (e.g., ethnicity, nationality)

Understanding the importance of personal social responsibility

Self-awareness and understanding

1.8. What do you plan to do when you graduate?

Enrol in postgraduate studies
Work full-time
Work part-time
Be self-employed
Study or work abroad
Work in a paid internship or community service position
Work as a volunteer
Take a year off
Do something else (please specify below)
I have no idea at this point

1.9. What is the highest academic qualification that you plan to achieve?

National Certificate or National Diploma
General Bachelor's degree (BA, BSc, etc.)
Professional Bachelor's degree (e.g., BSc(Eng), B.BusSci, LLB, MBChB)
Honours degree (e.g., BA(Hons))
Postgraduate Certificate or Diploma (e.g., PGCE, PG Diploma in Management)
Academic Master's degree (e.g., MA, MSc)
Professional Master's degree (e.g., MBA)
Doctorate / PhD
I don't know yet

1.10. What career do you hope to pursue after you've completed your education?

Artistic, creative professions
Business, finance-related professions
Education
Engineering, computer programming
Law
Media, publishing-related professions
Medicine, OT, health-related professions
Psychology, social work, helping professions
Researcher, scientist
Government, public administration
NGO sector
Other (please specify below)
I have no idea

1.11. What is the single most important thing that UCT could realistically do to create a better undergraduate experience for you?
[Open question]

PART 2: STUDENT LIFE AND GOALS

2.1. How important are each of the following university goals to you?
[Very important / Somewhat important / Not important]

Be in a position to contribute to my community after finishing my education
Discover what kind of person I really want to be
Achieve high marks
Establish meaningful friendship(s)
Prepare for postgraduate studies
Obtain the skills I need to pursue my chosen career
Explore new ideas
Develop a personal code of values and ethics
Develop an in-depth understanding of a specific field of study
Establish a social network that will help further my career

2.2. How important were each of the following factors to you in deciding to study at UCT?

[Very important /Somewhat important / Not important]

Intellectual curiosity

Leads to a high paying job

Prepares me for a fulfilling career

Complements desire to study abroad

Parental desires

Easy entrance requirements

Allows time for other activities

Provides international opportunities

Academic reputation / ranking

Couldn't get into my first choice of degree elsewhere

Interest in subject area

Prepares me for postgraduate studies

Provides me with funding / financial aid

Provides academic development programmes

Provides me with campus accommodation

Other, please specify:

Part 3 Campus Climate for Diversity

3.1. To what extent are the following statements true of your experience at UCT?

[Strongly disagree / Disagree / Disagree somewhat / Agree somewhat / Agree / Strongly agree]

I feel valued as an individual at UCT

There is a clear sense of appropriate and inappropriate behaviour at UCT

I am proud to be a UCT student

This institution values students' opinions

Diversity is important at UCT

Diversity is important to me

Academic cheating and plagiarism are a problem at UCT

Attending a university with world-class researchers is important to me

It doesn't really matter where I get my undergraduate education, since all universities are similar in quality

I am well socially integrated among my fellow students

3.2 Please indicate your level of agreement with the following statements.

[Strongly disagree / Disagree / Disagree somewhat / Agree somewhat / Agree / Strongly agree]

UCT has a strong commitment to undergraduate education

The emphasis on research detracts from the quality of teaching at UCT

3.3. How important to you are the following aspects of being an undergraduate student at a research-led university like UCT?

[Not important / Not very important/ Somewhat important/ Important /Very important / Essential]

Learning about academic staff research

Having courses with lecturers who refer to their own research as part of the class

Learning research methods

Assisting lecturers in their research, for pay or as a volunteer

Pursuing your own research

The academic reputation of UCT when you apply for postgraduate studies

The academic reputation of UCT when you apply for a job

Having access to a world-class library collection

Having access to the latest ICTs, other technologies, laboratory equipment, etc.

3.4. During this academic year, how often have each of the following been obstacles to your academic success?

[All the time / Frequently / Occasionally / Rarely / Not at all]

Competing job responsibilities

Competing family responsibilities

Other competing responsibilities (student societies, sport clubs, etc.)

Transport problems (e.g., getting to campus on time)

Weak English language skills

Inadequate study skills

Inadequate study environment

Inadequate funding, financial problems

Lack of campus accommodation

Feeling depressed, stressed, or upset

Physical illness or health condition

Social integration amongst fellow students

Being discriminated against

Traumatic experiences (e.g., death of a loved one, victim of violence or crime)

The adaptation from secondary school to the pace at UCT

Other (please specify)

3.5. Based on your experience and observation, rate the institutional climate at UCT along the following dimensions:

The UCT institutional climate is

Friendly / Hostile
Caring / Impersonal
Intellectual / Not intellectual
Tolerant of diversity / Intolerant of diversity
Safe / Dangerous
Too easy academically / Too hard academically
Affordable / Not Affordable
Elitist / Inclusive
Euro-centric / Afro-centric

3.6. Indicate how strongly you agree or disagree with each of the following statements.
[Strongly disagree / Disagree / Somewhat disagree / Somewhat agree /Agree / Strongly agree]

I feel free to express my political beliefs on campus
I feel free to express my religious beliefs on campus
Students are respected here regardless of their economic or social class
Students are respected here regardless of their gender
Students are respected here regardless of their race or ethnicity
Students are respected here regardless of their religious beliefs
Students are respected here regardless of their political beliefs
Students are respected here regardless of their sexual orientation
Students are respected here regardless of their nationality
Students are respected here regardless of their disability
Students are respected here regardless of their health / HIV-status
Students are respected here regardless of their age
Students are respected here regardless of their academic discipline / faculty / degree
Students are respected here whether they are on an extended / academic development programme or not
Students are respected here regardless of their residence status (e.g., residence vs. day students)

3.7. How often have you gained a deeper understanding of other perspectives through conversations with fellow students because they differed from you in the following ways?

[Never / Rarely/ Occasionally / Somewhat often / Often / Very often]

Their religious beliefs were very different from yours

Their political opinions were very different from yours

They were of a different nationality than your own

They were of a different race or ethnicity than your own

Their sexual orientation was different than your own

They were from a different economic or social class

They had a disability status different from you

They had a health condition / HIV-status different from you

Part 4 Overall Satisfaction and Agreement

4.1. Please rate your level of satisfaction with the following aspects of your university education.

[Very dissatisfied / Dissatisfied / Somewhat dissatisfied / Somewhat satisfied / Satisfied / Very satisfied]

UCT's level of marks (your overall grade point average/GPA)

Overall social experience

Overall extra-curricular experience (e.g., sport clubs, societies)

Overall academic experience

Overall value-for-money of your education

4.2. Please rate your level of agreement with the following statements.

[Strongly disagree / Disagree / Disagree somewhat / Agree somewhat / Agree / Strongly agree]

I feel that I belong at UCT

Knowing what I know now, I would still choose to enrol at UCT

Part 5: Uses of Technology

5.1 Personal Computer Use
[Yes/No]

Do you own a desktop computer?

Do you own a laptop or tablet computer?

Have you brought your laptop or tablet to class this semester?

Do you make use of the university's computer labs?

Do you use a smart phone to connect to the internet?

Do you have internet access at your residence / digs / home?

Are you overall satisfied with your access to the internet at UCT?

5.2. How frequently are the following used in your courses?
[Very often/Often / Somewhat often/ Occasionally /Rarely]

Online discussion forums

Online assignments

Online posting of readings

Videoconferencing

PowerPoint slides

Music

Film, TV, Rebroadcasts of television programmes, YouTube

Social media (e.g., Twitter, Facebook)

5.3. To what extent are the following statements true?
[Strongly disagree/ Disagree/ Disagree somewhat/Agree somewhat /Agree/ Strongly Agree]

I would like more lecturers to use PowerPoint slides in their lectures

I would like more lecturers to post course description on the internet or Vula

I would like more lecturers to post supplemental teaching materials on the internet or the Vula course website

The internet / Vula has helped me better communicate with my lecturers/tutors

The internet / Vula has helped me better communicate with my classmates

The internet / Vula has made it more difficult to complete assignments

I am more comfortable asking my lecturers questions during office hours rather than by email or Vula

I would prefer to buy printed course packets/readers instead of downloading readings from the Internet

Sometimes the use of information technology in the classroom makes it harder to do well in a course

I prefer to do research on the internet when possible rather than go to the library

Part 6 Political and Social Engagement

6.1. How important do you consider the following citizenship attributes?

[Not important / Not very important/ Somewhat important/ Important /Very important / Essential]

Understanding the Constitution, the Bill of Rights, and the values enshrined therein

Social responsibility, compassion, and ethical commitment to the common good

Knowing and understanding the structure of government, political processes, political concepts and issues

Critical reasoning and problem solving skills

Ubuntu

Patriotism

Social and communication skills

Participating in democratic processes

6.2a. What do you understand by the word "democracy" (in your own words)? [open question] _____

6.2b. In order to call a country a "democracy", please indicate which of the following features below you think are essential or not important al all?

[Absolutely essential/Somewhat essential/ important/ Not very important/ Not important at all/ Don't know]

Majority rule

Complete freedom for anyone to criticise the government

Regular elections

At least two political parties competing with each other

Basic necessities like shelter, food and water for everyone

Jobs for everyone

Equality in education

A small income gap between rich and poor

6.3. Which of these three statements is closest to your own opinion?

[select one]

Democracy is preferable to any other kind of government

In some circumstances, a non-democratic government can be preferable

For someone like me, it doesn't matter what kind of government we have

Don't know

6.4. There are many ways to govern a country. Would you approve of the following alternatives?

[Strongly disagree/ Disagree/ Disagree somewhat/Agree somewhat /Agree/ Strongly Agree]

Only one party is allowed to stand for election and hold office

The army comes in to govern the country

Elections and parliament are abolished so that the president can decide everything

6.5a. How interested are you in public affairs (especially in politics and government)?

[Very interested / Somewhat interested / Not very interested / Not interested at all / Don't know]

6.5b. How often do you discuss political matters in any of the following places/spaces?

[Never / Rarely/ Occasionally / Somewhat often / Often / Very often]

In the classroom

On campus with friends

Off campus with friends

At home with family

In Social Media (e.g., Facebook, Twitter)

6.5c. How often do you get news on public affairs and politics from the following sources?

[Every day/ A few times a week/ A few times a month/ Less than once a month/ Never/ Don't know] (HERANA style)

Radio

TV

Newspaper (including student newspaper)

Internet (e.g., Online News)

Social Media (e.g., Facebook, Twitter)

6.6. With regard to the last general election (local government election 2011), which statement is true for you?

I voted in the election

I was too young to vote

I chose not to vote

I did not vote for some other reason

Don't know/ can't remember

6.7. How often have you been involved in any of the following activities in the past twelve months?

[Often / Several times / Once or twice / Never, but I would probably if had a chance / I would never do this]

Attended a political meeting of students (e.g. a mass meeting) on campus

Contacted a senior university official (e.g. Vice-Chancellor) to raise an important issue or submit a complaint

Wrote a letter to a student paper/Varsity or make a pamphlet to protest about an issue

Joined others in a student demonstration or attended a protest march on campus

Attended a political gathering/meeting off campus

Contacted a government official to raise an issue or make a complaint

Wrote a letter to a local/national newspaper about an issue

Joined others in a demonstration or protest march off campus

6.8. Please select <u>all</u> the formal student leadership positions you are <u>currently</u> holding and/or have <u>previously</u> held at university level:

Class representative
Student leader/representative in the faculty (e.g., Faculty Council; PGSA)
Student leader/representative in a student residence (e.g., House Committee)
Member of the Student Assembly
Member of the Students' Representative Council (SRC)
Student representative in the senate, council, institutional forum, or in any other high-level university committee (e.g. Student Affairs Committee)
Other (please specify):

Part 7: Student Development and Support

7.1. Do you know how to find the following student support services on campus?

[Yes / No / I'm not aware of this service]

Academic Development Programme (ADP)
Access Control Services (and Card Production Centre)
Careers Service
Campus Protection Services
Disability Services and TCATS
Discrimination and Harassment Office (DISCHO)
Fees Office
HIV and AIDS Institutional Co-ordination Unit (HAICU)
ICTS
International Academic Programmes Office (IAPO)
Legal Aid Clinic
Societies' Centre
Sport and Recreation
Sport Injuries Clinic
SRC Offices
Student Faculty Council
Student Financial Aid
Student Housing and Residence Life
Student Orientation and Advocacy Centre
Student Records Office
Student Wellness Service
Writing Centre

7.2. Please rate your level of satisfaction with the following aspects of your university education.

[Very dissatisfied / Dissatisfied / Somewhat dissatisfied / Somewhat satisfied / Satisfied / Very satisfied]

Overall experience of student support services
Overall experience of administrative services in your department / faculty
Overall experience of university-wide administrative services

7.3. Indicate the way in which you have been involved in the following organisations in this academic year.

Campus-based organisations:

[Official leader / Active member / Inactive member / Not a member / Don't Know]

Academic (e.g., AIESEC, Black Law Students Forum, Surgical Society)

Advocacy (e.g., Amnesty International, Palestinian Solidarity Forum)

Campus sport (e.g., rugby club, cricket, hockey, tennis, soccer)

Governing bodies (e.g., SRC, student assembly, faculty council, residence house committee)

Honour society (e.g. Golden Key)

National/cultural student society (e.g., Botswana Students' Association, Zimbabwe Society)

Media (e.g., Varsity newspaper, UCT Radio)

Development agencies (e.g. SHAWCO, RAG, Ubunye)

Performing group (e.g., UCT Choir for Africa)

Political (e.g., ANC YL, DASO, SASCO, YCL)

Faith (e.g., ACTS, His People, Muslim Students' Association, Society for Bhuddism in Action, South African Union of Jewish Students)

Student Residence

Special interest, social and wellness groups (e.g., Debating Union, Film Society, Green Campus Initiative, Rainbow UCT)

Other campus-based club or organisation

Off-campus organisations:

[Official leader/ Active member/ Inactive member/ Not a participant]

Political organization (e.g., political party branch)

Non-political organization (e.g., civil society organization, cultural or sport club)

Religious organisation

7.4. How often during the current academic year have you participated in activities that develop the following skills?

[Never /Rarely/ Occasionally / Somewhat often /Often / Very often]

Note-taking, reading, summarising, essay-writing, library research and exam preparation

CV writing, job application and interview skills, career planning

Change management, team building, policy analysis, conflict management and negotiation

Chairing a meeting, minute taking, proposal and report writing, financial management

Countering racism, sexism, homophobia, xenophobia etc., dealing with harassment, peer counselling

Designing a business plan, marketing, financial management

Campaigning for a cause or candidate, debating and deliberation, organising a political meeting, consensus building

Time management, assertiveness, stress management, health and sexuality, coping with relationships

Part 8: Background and Personal Characteristics

8.1. Does or did any of the following persons have a university degree or Technikon National (N) 4-year Diploma or higher?

[Mother – Yes/No/Don't know]

[Father – Yes/No/Don't know]

[Primary guardian/caregiver, if other than mother or father – Yes/No/Don't know]

8.2. What is / was your mother's or primary guardian's first language? *[open question]*

8.3. What is your first language? *[open question]*

8.4 How often during the current academic year have you gone without food for a day or longer (not including fasting periods)?

[Never /Rarely/ Occasionally / Somewhat often /Often / Very often]

8.5. What is the occupation of your primary guardian / mother / father? *[open question]*

8.6. Which best describes your social class?

[growing up]

[currently]

Very wealthy

Middle-class / professional

Lower middle-class / upper working-class

Low-income working-class

Poor (e.g., unemployed, social grant)

8.7. How do you 'racially' categorise yourself?

Black

Coloured

Indian

White

Decline to state

Other

8.8 What is your gender?

Female

Male

Decline to state

Other

8.9. Which of the following best describes your political party orientation?

ACDP

ANC

APC

AZAPO

COPE

DA

ID

IFP

FF +

MF

PAC

SACP

UCDP

UDM

None of the above

Decline to state

Other *(please specify below)*

Thank you for your participation in this survey.

APPENDIX F-CONCEPTUAL MAP TO THE SURVEY QUESTIONNAIRE

Citizenship Attributes	Conceptual Family	Item in SERU Questionnaire	
1. Support for Democracy	**Definition of democracy/ Awareness of 'democracy'**	6.2a. Own Conception of 'democracy'	
	Support for democracy	6.3 Support for democracy	4-Point index
	Reject authoritarianism	6.4a Reject one party rule	
		6.4 b Reject military rule	
		6.4c Reject presidential dictatorship	
2. Knowledge and support of democracy	**Cognitive engagement with Democracy**	6.1 Understanding the Constitution	4-Point index
		6.1b Knowing and understanding the structure of government etc.	4-Point index
		6.1g Participating in Democratic Processes	4-Point index
3. Political Participation		7.3c List of campus-based organisations Governing bodies (eg. SRC, Student assembly, faculty council, residence house committee), Political (eg. ANC,YL, DASO, SASCO, YCL)	
		7.3n List of off-campus organisations Political (eg. Political party branch)	
		1.1h Hours spent participating in student societies and organisations.	
	Electoral participation	6.6. Voted in the last national election	
	Communing / Contacting (on campus)	6.7a Attended a political meeting of students	
		6.7b Contacted a senior university official to raise an issue /	

Citizenship Attributes	Conceptual Family	Item in SERU Questionnaire	
		complain	
		6.7c Wrote a letter to a student paper/pamphlet	
		6.7d Attended a student demonstration/protest march on campus	
	Communing / Contacting (off campus)	6.7e Attended a political gathering/meeting off campus	
		6.7f Contacted a government official to raise an issue / complain	
		6.7g Wrote a letter to a local/national newspaper	
		6.7h Attended a demonstration/protest march	
4. Interest in Democracy	**Interest in public affairs**	6.5a Interest in public affairs(politics and government)	
	Political discussion	6.5b1-6.5b5 Discussing political matters in various spaces (on campus, off-campus, at home, etc.)	
5. Appreciation of diversity	**Proficiency in language skills**	1.7d and 1.7q English language skills	
		1.7e and 1.7r South African language skills other than English	
		1.7f and 1.7s Foreign language skills	
	Proficiency in understanding diversity	1.7ad and 1.7an Ability to appreciate, tolerate and understand diversity (eg. race, gender, class, beliefs, sexual orientation)	
		1.7af and 1.7ap Ability to appreciate cultural and global diversity (eg. ethnicity and nationality)	
		1.7ah and 1.7ar Self-Awareness	
	Interacting with diverse others	3.7a-3.7h Engagement with students who are different (beliefs, political opinions, nationality, race, sexual orientation, social class, disability, health/ HIV status)	
	Involvement in organisations that encourage diversity	7.3l On-Campus organisations Special interest, social and wellness groups (eg. Rainbow UCT,	

Citizenship Attributes	Conceptual Family	Item in SERU Questionnaire	
	interaction	Green Campus Initiative)	
		7.3o and 7.3p Off-campus organisations such as Non-political organisation (eg. Civil Society organizations) and Religious organisation	
6. Commitment to social responsibility and community development	**Importance of citizenship attribute**	6.1a Sense of social responsibility, compassion and ethical commitment to the common good.	
	Community Involvement	7.3g Development agencies (e.g. SHAWCO, RAG, Ubunye)	
	Volunteering – extra-curricular	1.1e Volunteering in community outreach activities outside of academic work	
7. Critical thinking skills	**Importance of Citizenship attribute**	6.1c Critical reasoning and problem-solving skills	
	Proficiency in Critical Thinking	1.7a and 1.7m Analytical and critical thinking skills	
	Participation in activities that may contribute to the development of Critical Thinking	1.3a Contribute to class discussion	
		1.3b Brought up ideas or concepts from different courses during class discussion	
		1.5a-f Interaction with lecturers	
		1.1 a Hours spent on attending lectures, discussions, workshops, practicals	
		1.1 b Studying and other activities out1.1 Doing fieldwork, practica, internships, as part of academic outside of class	
		1.1c Tutoring or mentoring	
		1.1d Doing fieldwork, practica, internships, as part of academic work.	

Citizenship Attributes	Conceptual Family	Item in SERU Questionnaire	
		1.2a Explain methods, ideas or concepts and use them to solve problems	
		1.2b Break down material into component parts or arguments into assumptions to see the basis for different outcomes or conclusions	
		1.2c Judge the value of information, ideas, actions and conclusions based on the soundness of sources, methods and reasoning	
		1.2e Use facts and examples to support your opinion.	
	Critical evaluation of Campus environment	3.5a1 Friendly vs. hostile	
		3.5a2 Caring vs. impersonal	
		3.5a4 Tolerant of diversity vs. intolerant	
		3.5a6 Too easily academically-too hard academically	
		3.5a8 Elitist vs. down-to-earth	
		3.5a.9 Euro-centric vs. Afro-centric	
	Freedom of Expression	3.6.a1 Freedom to express political beliefs	
		3.6b Freedom to express religious beliefs	
	Respect for Difference/Equality	3.6c Students are respected here regardless of their economic or social class 3.6d Students are respected here regardless of their gender	
		3.6e Students are respected here regardless of their race or ethnicity	
		3.6f Students are respected here regardless of their religious beliefs	
		3.6g Students are respected here regardless of their political beliefs	
		3.6h Students are respected here regardless of their sexual orientation	
		3.6i Students are respected here regardless of their nationality	
		3.6j Students are respected here regardless of their disability	
		3.6k Students are respected here regardless of their health /	

Citizenship Attributes	Conceptual Family	Item in SERU Questionnaire	
		HIV-status	
		3.6l Students are respected here regardless of their age	
		3.6m Students are respected here regardless of their academic discipline / faculty / degree	
		3.6n Students are respected here whether they are on an extended / academic development programme or not	
		3.6o Students are respected here regardless of their residence status (e.g., residence vs. day students)	
		3.1e Diversity is important at UCT	
		A(2)8 Respect for otherness (race, class gender, etc.) on campus	
		A(2)4.12 Being discriminated against as obstacle	
		A(2)4.11 Social integration amongst fellow students as obstacle	

Based on Conceptual Map of Round 3 Afrobarometer and HERANA I (2009).