

**CHAPTER 1:**  
***PURPOSE, SCOPE AND EXTENT OF THE STUDY***

## 1.1. Introduction and background

“If you think in terms of a year, plant a seed; if in terms of ten years, plant trees; if in terms of 100 years, teach the people”. These wise words were uttered over two millennia ago by Confucius, the great Chinese philosopher. Never have these words been more relevant than for current times. Education is widely regarded as one of the most vital ingredients in solving the problems of modern society. This is also true for South Africa. In response to Mr Jacob Zuma’s first State of the Nation Address as the current president of South Africa, Mrs Angelina Motshekga, the South African Minister of Basic Education agreed with the president that “education is the single most important tool to develop our people, safeguard their future and that of this country” (Department of Basic Education, 2009). Various other commentators agree that the country’s future depends on education (Gillingham, 2012; Motlanthe, 2013).

Whereas basic (primary and secondary) education provides the building blocks for societal development, it is higher (tertiary) education and training that must ultimately address the eminent skills shortages in commerce and industry. Dr Blade Nzimande, Minister of Higher Education and Training, argued that “universities, as providers of the highest level of academic education, have a special role to play in strengthening the post-school system as a whole and play a central role in national development” (Ministry of Higher Education and Training, 2010). One of South Africa’s foremost experts on politics and higher education, Prof Adam Habib, agrees that higher education can play a fundamental role in the economic transformation of the country (Habib, 2013).

Although many other professions and vocations are also crucial, Dr Nzimande views the profession of chartered accountancy (CA) as critical to the economic, social and cultural development of the country. It has the potential to fulfil a broader leadership function in skills development in the country. The profession itself is facing numerous challenges, especially given the immediate skills requirements and the image of the profession in South Africa in regard to its professional demographics (Department of Higher Education and Training, 2010; 2012; SAICA, 2013c).

South Africa has approximately 28 800 registered chartered accountants (CAs) functioning within its borders (SAICA, 2013b). This number hardly seems sufficient in a country with a population of over 50 million as per the latest census (Statistics South Africa, 2011), and close to 300 000 registered companies and more than 800 000 close corporations according to latest available statistics (CIPRO, 2011). A severe shortage of accountants was one of the findings of extensive research conducted by the South African Institute of Chartered Accountants (SAICA) among 739 organisations employing 1.2 million people. Following the research, it was estimated in 2008 that South Africa faced the daunting task of finding about 22 000 more accountants. Moreover, SAICA warned that the shortage could worsen in coming years (Temkin, 2008), which is confirmed by Kater (2011), Nzimande (2012) and Seggie (2012). By some estimates, the shortage grew to

26 000 accountants in more recent times (Kinnear, 2011). The lack of accountants includes a shortage of over 5 000 CAs specifically and it is estimated that, by 2018, 10 000 new vacancies will arise in the financial sector every year (Citizen Reporter, 2013; Department of Higher Education and Training, 2012). Another survey of financial divisions of public and private sector organisations employing 27 953 people found that 62% of public sector companies experienced problems keeping skilled staff, and accounting professionals were the most difficult to retain (Temkin, 2008). Many authors confirm South Africa's serious skills deficit in respect of accounting and auditing in both the public and private sectors (Kinnear, 2011; Mtshali, 2013; New Age Reporter, 2013; Seggie, 2012; Sehoole, 2006; Shevel, 2013; Stuttard, 2007; Temkin, 2009; Tulleken, 2009).

The majority of commentators agree that the root of the country's skills problems lies in the apartheid regime. Apartheid (meaning "separateness" in the Afrikaans language) was a system of legal racial segregation in South Africa enforced by the National Party government between 1948 and 1990. Following the general election of 1948, the National Party set in place its programme of apartheid which entailed the formalisation and expansion of existing policies and practices into a system of institutionalised racism and white domination. Apartheid was dismantled in a series of negotiations from 1990 to 1993, culminating in elections in 1994 (Davis, 2008; Lagasse *et al.*, 2000). However, the vestiges of apartheid still shape South African politics and society today (Davis, 2008; McKaiser, 2013).

Apartheid legislation classified inhabitants of and visitors to the country into racial groups (black, white, coloured, and Indian or Asian). South African black people were stripped of their citizenship and awarded legal citizenship of one of ten tribally based and nominally self-governing homelands, four of which became nominally independent states. The homelands occupied relatively small and economically unproductive areas of the country. Many black South Africans, however, never resided in their identified "homelands". The homeland system disenfranchised black people residing in "white South Africa" by restricting their voting rights to their homelands. The government segregated education, medical care, and other public services, and provided black people with services greatly inferior to those of white people. The education system practised in black schools was designed to prepare black people for lives as a labouring class (Davis, 2008; Lagasse *et al.*, 2000; South Africa, 2002:3-5).

After dismantling apartheid in 1994, the new government implemented the Employment Equity Act of 1998 and the Broad-Based Black Economic Empowerment Act of 2003 which aim to promote and achieve equality in the workplace by advancing historically disenfranchised people ("designated groups"). By legal definition, the designated groups include all people of colour, white females, people with disabilities, and people from rural areas. However, government's employment legislation reserves the vast majority of new jobs for black people and favours black-owned

companies. The Broad-Based Black Economic Empowerment Act is implemented through Codes of Good Practice. It is quota based, with specific required outcomes. By a relatively complex scoring system, which allows for some flexibility in the manner in which each company meets its legal commitments, each company is required to meet minimum requirements with regard to representation by designated groups. The matters covered include equity ownership, representation at employee and management level, procurement from black-owned businesses, and social investment programmes (Department of Trade and Industry, 2012; South Africa, 1998; 2003).

“Transformation” is the general term used in South Africa to refer to this process of changing the South African social and economic landscape and uplifting the designated groups of people. One vital area where transformation is needed is in education. The legacy of apartheid has resulted in a fragmented and distorted higher education system in which some institutions are better resourced than others and in which race and ethnicity continued to define and act as a stumbling block to access into many of the country’s higher education institutions. In 2002, the then South African Minister of Education introduced a transformation programme for higher education to address social and structural inequalities that characterise the higher education system in South Africa. In essence, this programme intended to restructure the higher education landscape in South Africa by merging various tertiary institutions to achieve a healthier distribution of resources and expertise (NWU, 2013b; South Africa, 2002:3-111).

One such merged institution is the North-West University (NWU), which forms the main subject of this thesis. One of its mission elements relates to transformation. This mission element is subdivided into 11 goals, of which one relates to “equity”. This goal is phrased as follows in the NWU Institutional Plan:

Ensure that policies, processes and practices are directed towards proactively addressing historically entrenched forms of discrimination. This pursuit is to take place within the guiding principle that all the NWU campuses should reflect a diverse student and staff population within the parameters of achieving the agreed minimum diversity targets (NWU, 2013c).

Although transformation is a broad concept which is not just related to equity, race or ethnicity, the equity topic is often accepted as a valid, yet narrower, interpretation of the term “transformation”. All references in this thesis to “transformation”, therefore, refer to the narrower issue of equity.

SAICA’s (2013a) strategy specifically includes such issues as growth in number of CAs, transforming the profession, especially the demographics in the base of students presenting themselves for the qualifying examinations, as well as community upliftment. Although

transformation is an important part of the strategy, it is not the only objective. Mr Ignatius Sehoole, recent executive president of SAICA, summarised the issue by saying that it is not a matter of having too many white CAs compared to other races, but that there are too few CAs (irrespective of race) to satisfy the needs of the economy. It is not a race issue, but a skills shortage issue (Visser, 2005:21). Accounting education as a research field clearly has a considerable role to play in informing these strategies and, ultimately, aid in addressing the accountancy skills shortage.

Even as far back as two decades ago, Patton and Williams (1990) suggested that the fundamental flaw in accounting education is that it has remained static while the profession has changed (Ainsworth, 2001:280) – and the profession was not changing then nearly as fast as it is today. There is a growing consensus among accounting professionals that recent accounting graduates do not adequately meet the high standards set by potential employers in the modern, globalised business environment (Clovey & Oladipo, 2008:60; Otrusínová & Hýblová, 2013). SAICA (2011) seems to agree with these views, as its vision is to develop leaders. One of the fundamental ingredients in achieving SAICA's (2013a) strategic objectives is through high-quality education and training. SAICA plays an important part in promoting quality of education of prospective CAs. While all universities are recognised and accredited by the Higher Education Quality Committee (HEQC), only students who complete a SAICA-accredited programme are eligible for writing part one of SAICA's qualifying examinations (Initial Test of Competence, or ITC). By accrediting a programme, SAICA (2011) certifies that the university has put in place the appropriate resources that, if utilised effectively, should enable it to deliver the programme at the required standards and levels of quality and that the programme meets SAICA's requirements in terms of the standards of learning and teaching.

SAICA has adopted a competency framework (CF) for the profession which is a high-level description of competencies that a CA should possess on entry into the profession. It provides the base upon which programmes of education, training and assessment are developed. The framework identifies leadership as one of the fundamental attributes of a CA in South Africa [CA(SA)]. A CA(SA) should have the ability to be a leader in any environment in which the CA(SA) functions. It is vital that pre-qualification programmes equip the candidate with competencies which, when complemented by post-qualification training experience, would ensure the growth and acquisition of leadership ability. The second fundamental competency that has been identified is that of lifelong learning, which is primarily developed in the pre-qualification period. Furthermore, a CA(SA) has to possess the business and entrepreneurial skills which make effective leadership in a business context possible (SAICA, 2010:4-5).

Transformation in the CA profession cannot occur overnight, since it takes at least seven years to qualify as a CA in South Africa. This comprises a demanding three-year degree and a one-year

post-graduate or honours programme (called the Certificate in the Theory of Accounting, or CTA) accredited at SAICA, followed by a three-year training period in practice whilst also sitting for the two parts of SAICA's qualifying examinations (Mtshali, 2013; Ryan, 2002:21; SAICA, 2013d). Chartered accountancy is a challenging degree and career to pursue, because there are a vast number of accounting standards of high complexity, together with continually changing auditing standards and tax legislation (Neophytou, 2012; Temkin, 2005:2). Much has also been written about the new generation's apparent expectation of "instant gratification" and the challenges this pose for tertiary education, as these students expect instant and positive results for minimal efforts (Schultz, 2010; Westerman, 2007).

One university that offers a SAICA-accredited programme is the NWU. It is one of only 14 universities accredited by SAICA. As a result of the transformation programme, the University of North-West, a historically black university, merged with the Potchefstroom University for Christian Higher Education, a historically white university, on 1 January 2004. The NWU has three campuses, namely one in Potchefstroom, one in Vanderbijlpark (the Vaal campus) and another in Mafikeng (NWU, 2013a). The NWU offers CA programmes up to honours level at its Potchefstroom and Vaal campuses, and at undergraduate level at the Mafikeng campus. It is the only university in the North-West Province and attracts many students from surrounding rural areas. It is, therefore, perfectly placed to tap into the greatly under-utilised potential of prospective CAs from rural communities which, according to Dr Blade Nzimande, is crucial in addressing the accountancy skills deficit (Department of Higher Education and Training, 2012). Moreover, it is located fairly close to the large metropolitan cities of Gauteng Province and attracts many students from these urban areas as well. It, therefore, has the potential to make a significant contribution to the accountancy skills shortage of the country.

The NWU faces many challenges in its CA programme, one of which is the fact that, by instruction of the Institutional Management, the academic programmes of all three campuses must be aligned in terms of course structure, study material and assessment (at least final examinations for modules) (Eloff, 2004). SAICA sets the same requirement, with which the NWU needs to comply should it wish to retain the accreditation of its CA programme. Since the merger in 2004, the campuses were initially not fully aligned in respect of the CA programme, but alignment was phased in gradually since 2007 at first-year level, giving rise to full alignment from first-year to third-year level from 2009 onwards. Despite the merger being hailed as one of the most successful and stable ones in the country, alignment remains a logistical challenge given the physical distance between the three campuses and their different historical backgrounds (NWU, 2013b).

It should be clear from the discussion above that South Africa needs all the help it can get in alleviating its professional skills shortage, in general, and its accountancy skills shortage, in

particular. If it can bridge the challenges described earlier in this section, the NWU can play a vital part in this process. The next section will investigate the nature of these challenges in more detail and motivate the problem statement of this study.

## 1.2. Motivation

As explained in the previous section, as one of only 14 SAICA-accredited universities, the NWU has an important role to play in alleviating the country's financial skills shortages and, consequently, contribute to the economy and the broader society. One of the central arguments of this thesis is that the NWU (like any other institution) must identify and break down the barriers that prohibit its students from achieving optimal results, especially the barriers that can, at least partly, be controlled or influenced by the university. The various studies reported on in this thesis are all rooted in this pivotal theme, i.e. to reveal the hurdles the institution should overcome or the areas that require amelioration to ensure that the NWU successfully deliver as many as possible CA graduates of the highest quality not only to the optimal benefit of employers, but also to the broader society. Ultimately, this study wishes to provide the NWU with the information it needs to reform its CA programme in line with this goal, but also to expose barriers that could prevent other institutions from achieving optimal results.

A review of relevant literature identified various barriers that are of particular interest to the NWU. Such barriers include insufficient career-oriented communication by the university, for example, about the challenges of obtaining the qualification and what a CA does in practice (Duff & McKinstry, 2007:188; Odendaal & Joubert, 2011; Wynn-Williams, 2009), and a lack of motivation or, more specifically, the university's lack of efforts to positively motivate students (Adler *et al.*, 2001; Campbell *et al.*, 2003; Gabbin, 2009). The literature also points to possible weaknesses in accounting programmes of an academic nature, or a lack of support to students, for instance, insufficient supplemental instruction (Jones & Fields, 2001; Steenkamp *et al.*, 2012), insufficient and/or inadequate homework assignments (Duff & McKinstry, 2007:188; Hassall & Joyce, 2001; Ijiri, 1983), inadequate study material (Bargate, 2012; Davidson & Baldwin, 2005) and poor and/or uninspiring lecturers, and/or ineffective teaching methods (Hartnett *et al.*, 2004; Russell *et al.*, 2000). Some researchers (Bryant & Hunton, 2000; Ramsden, 2003) have even said that deficient classroom or campus facilities and a lack of technology usage impair learning.

From a transformation perspective, most universities in South Africa battle with lower throughput rates for black students (Mafu 2006; Sadler & Erasmus 2005). Universities will have to become much more involved in the above-mentioned aspects and offer the necessary support to black students to help turn around this situation (Odendaal & Joubert, 2011). Prior literature suggests that language competence can be a barrier to performance in accounting for many students, and in the South African context especially for black students who, most often, do not study in their home

language or even their second language (Baard *et al.*, 2010; Eiselen & Geysers, 2003), although universities can enhance the language skills of their students through appropriate interventions. Financial difficulties of students can also hamper their performance (Bokana, 2010; Evans, 2010), which highlights the need for financial aid. Of particular relevance to the NWU is also the issue of access of black students to CA studies at this university. The Mafikeng and Vaal campuses offering instruction in English are lesser resourced, resulting in restricted capacity, whereas the better-resourced campus (Potchefstroom) adopted what could be seen as restrictive language policies in that undergraduate classes are presented in Afrikaans, with simultaneous interpreting into English, but no lectures directly in English. These issues warrant further investigation in order to make a positive contribution to transforming the NWU's student demographics in the accounting sciences, which should see an overall increase in successful graduates.

Regardless of race, gender or culture, accounting students often fail to successfully complete their studies. The attrition of students in South African higher education is truly worrisome (Bokana, 2010) as the country has one of the highest dropout rates in the world (De Hart & Venter, 2013). Literature on student failure in higher education is limited despite it being a common experience among undergraduates (Wimshurst & Allard, 2008:687). Ascertaining the reasons for student failure and dropout in accountancy, could be extremely valuable to the NWU (as well as other higher education institutions) and would allow for the planning and implementation of appropriate interventions focused on addressing the specific factors which are most likely to cause failure. Research on student failure is especially important as previous studies have shown that lecturers' perceptions of the causes of failures are not correlated to students' perceptions thereof (e.g. Barnes *et al.*, 2009; Sadler & Erasmus, 2005; Tladi, 2013).

Based on the topicality of this issue in accounting education literature, no comprehensive study on the amelioration of accounting education would be complete without considering the issue of professional skills development of students, including soft skills (also referred to as generic or transferrable skills). These skills include oral and written communication and presentation (Kerby & Romine, 2009; Matherly & Burney, 2009), information and communication technology (ICT) skills (Rhodes, 2012; Schmidt *et al.*, 2009), and interpersonal, social, teamwork and leadership skills (Kennedy & Sorensen, 2006; Schmidt *et al.*, 2009). Time management and the ability to plan are also crucial skills for accountants (De Jager & Bitzer, 2013:402; Stoner & Milner, 2010). Other professional skills more closely related to subject content are the ability to apply professional judgment, critical, conceptual and analytical thinking, problem solving, self-criticism/reflection and other intellectual skills (Barth, 2008; Correll *et al.*, 2007; Jones & Davidson, 2007; Tonge & Willett, 2009). Contemporary accounting education literature contains many appeals to incorporate more opportunities in accounting curricula to develop these types of skills (e.g. De Villiers, 2010; Montañaño *et al.*, 2004; Stainbank, 2010; Wessels, 2008), as many universities are seemingly failing

to sufficiently equip their graduates with the skills required for the workplace (e.g. Barac, 2009; De Lange *et al.*, 2006; Kavanagh & Drennan, 2008), creating a further barrier to achievement.

Perhaps in competition to the above calls to develop professional skills, universities' traditional purpose is to promote scholarship and instil the higher-level academic skills (as opposed to technical and practical, workplace-related skills) in their students, including academic theorising, research skills, and conceptual and critical thinking. Employers (and the professional bodies representing them) may, however, influence the education agenda, preferring short-term, intensely focused programmes of study as opposed to more conceptual traditional programmes (Jameson *et al.*, 2012), especially when professional programmes in higher education are involved (Hoyle & John, 1995; Walker & McLean, 2010). This tension between professional education influenced by employer demands, on the one side, and the university philosophy, on the other, warrants further exploration, as Peach (2010) warns that professionalisation within higher education results in the proliferation of vocational subjects, rejecting the predominance of academic knowledge. This potential clash or imbalance between academic and professional epistemologies creates the danger of universities' superimposing one epistemology on the other which can cause confusion in learning outcomes, as well as overloaded curricula. The possible neglect of academic and scholarly skills may also be another barrier preventing accounting students from becoming independent thinkers, achieving success in their studies and being the best accountants they can be.

Based on the above discussion, it is undeniably clear that, for the NWU to ameliorate and reform its endeavours to successfully train CAs, it should investigate the reasons as to why some of its students are failing and establish the existence and measure the severity of possible barriers that prohibit its students from achieving optimal results. This includes, but is not limited to, barriers that prevent the NWU from contributing significantly to the transformation agenda of the country, especially the issue of racial demographics of successful CA students. Another possible barrier to optimal achievement could be an excessive focus on professional requirements at the expense of scholarship. After considering all of these issues, the NWU should be in a position to develop and implement meaningful interventions with positive results. The author believes, based on experience, that accounting educators tend to be "set in their ways" and that one can only learn so much from the literature, courses and workshops, and books. To challenge oneself, one must be willing to listen to the critique of students and look at what other educators do. It is, therefore, imperative for the NWU to be sensitive to its students' opinions, as well as to benchmark itself against other institutions.

Research on the above issues will also supply further information at a time when the NWU's School of Accounting Sciences is earnestly rethinking its strategic imperatives regarding teaching

and learning, curriculum and assessment, which includes an ardent focus on transformation. Further, it will offer valuable input into the rearticulation of the CA programme following the introduction of SAICA's CF.

### **1.3. Research problem and hypotheses**

Motivated by the discussion in the previous section, the problem statement of the study is broadly defined as follows:

Owing to the shortage of CAs in South Africa and the corresponding requirements imposed on universities by SAICA, and in light of the challenges faced in accounting education, in general, and by the NWU specifically, the NWU needs to ameliorate its CA programme through appropriate educational interventions to ensure a higher success rate (including throughput) for CA students.

Based on the above problem statement, it is hypothesised that:

- a) The NWU's approach to scholarship and pedagogy falls short when benchmarked internationally;
- b) There are a number of influenceable barriers and weaknesses that prevent the NWU's CA students from achieving optimal success in their studies;
- c) Some limitations at the NWU constrain the university's transformation goals;
- d) Apart from the general achievement barriers identified in the literature, there are additional factors that cause the NWU's first-year CA students to fail or drop out;
- e) The NWU's students will have a positive experience of the greater efforts to develop their professional skills.

### **1.4. Primary research objectives**

Based on the problem statement in the previous section, the NWU needs to develop and implement appropriate educational interventions to address some of the issues within its sphere of control or influence and, in this way, ameliorate its CA programme. In broad terms, this study aims to establish the extent of the barriers to success of the CA programme at the NWU and to recommend appropriate interventions to address such issues. To make a positive, practical contribution, a prototype of the most significant tool(s) recommended as an educational intervention will also be developed and tested so that the university can refine and implement such tool(s) in future.

Based on the broad purpose of the study stated above, the primary research objectives of this study are motivated and formulated below. The literature (refer section 1.2, page 7) reveals some significant barriers to success of CA students that are under the control of the university, or that the

university can influence or address, at least to some extent. It is submitted that it could be rather pointless in the context of this study to research the challenges that exist outside the university's sphere of control or influence. Since it aims to recommend appropriate educational interventions, the study will focus largely on the issues the university can influence.

A logical first step is to benchmark the NWU's CA programme against international best practice. Apart from all the literature available in this regard, this study goes one step further by also addressing the first primary research objective:

- i. To compare and critically analyse differences in curriculum, teaching and learning methods, and assessment between the NWU CA programme and the professional accountancy department of a comparable university in the United Kingdom so as to identify possible interventions for the NWU programme (addressed in chapter 3).

After the search for international best practice, the NWU needs to do further introspection to understand the other barriers to success of CA students at the NWU (as identified in accounting education literature). The second primary research objective is thus formulated as follows:

- ii. To identify and gauge the strength of possible barriers to student achievement (as identified in the literature) in the NWU's CA programme (addressed in chapter 4).

Owing to various factors (e.g. issues regarding language, culture and geographical location), the ethnical demographics of the three campuses of the NWU are markedly different. Many of the barriers identified in the literature, which form the subject of the second primary research objective, are expected to be more prevalent for black students (e.g. competence in the use of language and financial difficulties). In other words, students from different ethnic backgrounds may rate the efficacy of the drivers of achievement at the NWU differently, which may, at least partly, be linked to circumstances at each campus of the NWU. The third primary research objective is, therefore:

- iii. To assess whether there are differences in the perceptions of the NWU's CA students from different campuses and different ethnic backgrounds regarding the efficacy of various student achievement drivers (addressed in chapter 5).

Primary objectives i to iii should shed light on the strength of some of the barriers indicated in the accounting education literature. It could, however, be dangerous to rely only on institutional comparisons and the literature when identifying the possible barriers to success in the CA programme; one stands the risk of overlooking other barriers that need to be addressed in the development of appropriate interventions, especially at first-year level where failure and dropout

are often of great concern. To, therefore, determine the full range of barriers, the fourth primary research objective is:

- iv. To diagnose any possible reasons for student failure (that are not necessarily addressed in the literature), especially failure to complete the first year of CA studies at the NWU successfully (addressed in chapter 6).

Informed by the results of the first four primary research objectives (the diagnostic phase of the study), the fifth primary research objective seeks an intervention to ameliorate the CA programme:

- v. To develop and evaluate a prototype of the tool most needed as an educational intervention to ameliorate the CA programme (addressed in chapter 7). As will be seen throughout the results and recommendations of chapters 3 to 6 (addressing the first four primary research objectives), a strong emerging theme is that the NWU needs more tools to develop and assess its students' professional skills. This fifth primary research objective is, hence, further refined as follows: To develop and evaluate the success of an inter-disciplinary integrated case study and business simulation assignment to enhance students' professional skills.

Based on the results of the first five primary research objectives, and with reference to the literature, the sixth primary research objective is:

- vi. To recommend appropriate accounting education interventions to, at least partly, address the barriers to success of the CA students at the NWU (addressed in all chapters and summarised in chapter 8).

Each of the primary research objectives above will form the basis for the primary or main purpose or objective or research question stated in each of the five chapters 3 to 7 (the five research articles). Further, more specific or detailed (secondary) research objectives or questions (not listed above) are defined in each of these chapters, where relevant.

It should be clear from the research objectives set out above that this study attempts to address a broad spectrum of issues. Through data gathering from various sources and the application of various research methods, this study should provide most of the information the NWU needs for a strategic plan to majorly overhaul and ameliorate its CA programme, especially in light of the challenges posed by the new CF of SAICA. These methods are discussed in the next section.

## 1.5. Method

The methods used in this study are briefly set out below.

### 1.5.1. Literature study

All relevant and recent literature was consulted in order to establish a theoretical base for the empirical studies that will be conducted. The literature covered the following, amongst other things:

- Requirements and statistics of government and professional bodies regarding accounting education and transformation in South Africa.
- Recent South African and international peer-reviewed articles on studies conducted in the accounting education field with a view to build on their conclusions and recommendations.

Such studies included:

- Results from prior international comparisons of educational programmes.
- Barriers to success of accountancy students and measures to overcome them.
- The implications for education of ethnic and/or cultural differences amongst students.
- Reasons for student failure, in general, and in accountancy, in particular.
- The skill sets that are required to form part of accounting curricula and educational tools that may aid in developing such skills in students.

### 1.5.2. Empirical research

The study as a whole can be described as a case study of the NWU, supplemented by various surveys, focus group discussions, inspection of documents and other data-gathering techniques that will be explained later in this section.

To address the research objectives formulated in section 1.4 (page 10), the study embarked on five distinct projects. The main features of the methodology that was followed for each project are briefly highlighted below. More detail on the methodology followed for each project, the nature of the samples and research instruments are given in chapters 3 to 7.

#### **Project 1: Balancing academic and professional pedagogies: A comparative study of two accounting departments in South Africa and the United Kingdom**

##### *Research design and instrument*

A comparative study of the delivery of two specific accounting degrees (i.e. a case study) was conducted. Comparative research provides an alternative to empirically based methodologies providing useful insights. Empirical theories and quantitative research have dominated research, but opinions are changing regarding qualitative subjectivist studies (refer to chapter 2). Kogan (1996) notes that rigorous comparative research can be a starting point rather than an end in itself,

inspiring further research, and Henning (2004:41) promotes qualitative case studies over quantitative methods to gain in-depth understanding of the situation and meaning for those involved.

A key question must be whether the purpose of the comparative studies is to provide generalisable conclusions or to gain insight into particular situations. This project attempted to compare a number of themes on accounting degrees offered by two universities in different countries where similarities and differences in culture were observed, with a view to gaining insight into particular differences between the programmes.

The selection of themes was restricted in number in order to allow appropriate depth of analysis. These themes were (1) curriculum, (2) teaching and learning, and (3) assessment.

#### *Participants and timing*

The CA programme of the NWU was compared with the professional accountancy programme of a respectable university in the United Kingdom (UK). The comparison was done shortly before the NWU adopted the CF of SAICA (refer to detailed discussion in section 1.1, page 5) and, therefore, could provide useful input in the design of modifications needed in terms of the CF and revised government requirements.

The selection of the specific UK university emanated from links founded on the common grounds of professional accounting accreditation for the degrees of this UK university and of the NWU. Both universities were seen to aspire to a professional accounting route for their undergraduate students, as well as an academically rigorous qualification. Initial soundings showed that, whilst similarities existed with regard to the educational process and qualifications frameworks (QAA, 2001; South Africa, 2007), interesting differences also warranted explanation. The case study methodology undertaken might not have provided conclusions that can be generalised fully, but have provided insights of an appropriate depth to pose key questions regarding the different styles of education (Henning, 2004:41). It was anticipated that this initial study would point to further areas of research, and that it could generate new ideas for improvement of the NWU CA programme, especially in light of the new requirements imposed by both SAICA (2010) and the SA government (e.g. the higher education qualifications framework) (South Africa, 2007).

#### *Data gathering and analysis of results*

The study commenced with a comparison of the accountancy quality assurance frameworks of the two countries, both from government and the relevant professional bodies. This provided the backbone for a comparison of the two specific programmes. Information regarding the programme of the NWU was reasonably simple to acquire because of the author's affiliation with the university.

As the project was a collaboration with a senior staff member involved with the UK programme, the attainment of information on the UK programme also proved not to be problematic. Amongst other things, documentation and policies regarding the two programmes were inspected and staff from the two institutions was interviewed to gather information not contained in formal documentation. The information-gathering process was concluded with focus groups of the staff of both institutions to establish the catalysts for the respective institutions' choices regarding the three themes investigated. The focus group discussions were recorded, transcribed and meticulously analysed to uncover all emerging themes.

Once all the information had been gathered, the two programmes were compared with reference to the different identified themes, and the key similarities and differences were summarised and explained with reference to institutional theory (refer to section 2.4.4 in chapter 2, page 50).

## **Project 2: Barriers to academic performance of accountancy students at a South African university**

### *Research design and instrument*

The instrument was a written survey consisting of seven demographical questions and 66 questions on a five-point Likert scale regarding student perceptions of communication by the university, motivation of students, financial difficulties, supplemental instruction, homework, language proficiency, study material, lecturers, teaching methods, campus facilities and skills development of students. This project was, therefore, largely quantitative in nature, but the survey was concluded with an open-ended question regarding any other achievement barriers as perceived by the students.

The instrument was self-constructed, but various measures were taken to ensure its validity and reliability. These are explained in detail in chapter 4.

### *Participants and timing*

The target population was all undergraduate CA students at the NWU enrolled at the time of the study (all three campuses and all year groups, first-years through to third-years). The survey was administered to the participants near the end of the academic year, as students in each year group had the chance to experience virtually the full year of the programme and were, hence, in a position to provide meaningful input to the study. A total of 790 students participated in the study, representing an 80% response rate.

### *Data gathering and analysis of results*

Completed surveys were captured in a spreadsheet. The data were imported into the statistical software package IBM SPSS (SPSS, 2011), where it was processed into functional information in order to describe the results obtained from the data.

The unit of analysis was the NWU CA programme as a whole rather than its individual students and, as such, conclusions were drawn regarding the programme as a whole.

### **Project 3: Transforming the accountancy profession: Educational challenges at a historically white South African university**

This project made use of the data obtained from the same survey as the one used for Project 2 described earlier. However, statistics were analysed specifically to shed some light on transformation issues by, for example, comparing the views of students from different races and campuses. In terms of research design, the instrument used, participants and timing, as well as data analysis, the research method of Project 3 is similar to that of Project 2.

A confirmatory principal components factor analysis was performed on each group of questions using IBM SPSS (SPSS, 2011) in order to confirm whether the different questions in the survey on each barrier identified in the literature measured the same construct for purposes of both Project 2 and Project 3. The sample size of 790 respondents was more than sufficient for factor analysis (Nunnally, 1978; Tabachnick & Fidell, 2007:613). The Kaiser-Meyer-Olkin Measures of Sampling Adequacy (MSA) exceeded the minimum recommended value of .6 (Kaiser, 1974; Pallant, 2007:181; Tabachnick & Fidell, 2007), and Bartlett's (1954) test of sphericity reached statistical significance for all groups of questions, supporting the factorability of the data.

After careful joint consideration of the variance explained by each component, Kaiser's eigenvalue criterion, Catell's (1966) scree test, and parallel analysis (Horn, 1965) as suggested by Pallant (2007:182-183), it was clear that the group of questions on each barrier measured the same construct, as factor analysis confirmed the retention of only one component per group of questions, but with the following two exceptions:

- Regarding the questions on campus facilities, factor analysis revealed two subcomponents. After computing the Cronbach alpha coefficient for this group of questions and the two subcomponents separately, it was apparent that the individual questions measured unique constructs and it was decided to report each question on the different types of campus facilities separately.
- Regarding the questions on skills development, factor analysis revealed two subcomponents: a distinction between general soft skills and skills that are more specific to

accounting, for example, technical argumentation, analytical skills and problem solving. It was, therefore, decided to report these two subcomponents separately, as they measure two different constructs.

To enhance the constructs' reliability, an insignificant number of items were dropped because of suboptimal loadings, after which the factor analysis was reperformed. The questions that were subject to factor analysis (apart from campus facilities) were reduced to nine components as per table 1.1 below. The reliability of each subscale (as measured with the Cronbach alpha coefficient) is also indicated in this table.

**Table 1.1: Results of confirmatory principal components factor analysis of survey used for Project 2 and Project 3**

Component	MSA	Cronbach alpha
Sufficient communication by university	.749	.691*
Efforts of university to motivate students	.672	.756
Students experiencing financial difficulties	.806	.788
Need more supplemental instruction	.748	.745
Sufficient homework assignments given	.786	.727
Students competent in study language	.775	.707
Quality of study material offered	.743	.687*
Quality of lecturers and teaching methods	.910	.847
Sufficient soft skills development	.868**	.809
Sufficient subject skills development		.717

\* These Cronbach alpha coefficients are slightly below the suggested value of .7. Although the author considered these components reliable based on the close proximity of the alpha coefficients to the accepted norm, Cortina (1993), Field (2005:668) and Pallant (2007:95) advise that smaller values for Cronbach alpha coefficients can be expected with short scales (e.g. scales with fewer than ten items). In such a case, they advise that it may be more appropriate to report the mean inter-item correlation for the items. These components contained six and five items respectively. Briggs and Cheek (1986) recommend an optimal range for the inter-item correlation of .2 to .4. The mean inter-item correlations for the questions in these two components were .275 and .308 respectively and, therefore, within the range suggested by Briggs and Cheek.

\*\* Subjected to factor analysis as one group of questions; two components extracted.

## **Project 4: A qualitative investigation into student failure in accountancy at a multi-cultural South African university**

### *Research design and instrument*

This project was qualitative in nature and made use of focus group discussions to gather information.

### *Participants and timing*

The participants to the focus groups consisted of students who studied CA in their first year, but failed to achieve the admission requirements for the second-year CA programme. Some of these students repeated their first year in the CA programme, whereas others converted to a different qualification programme within the accounting field, but with less stringent second-year admission requirements.

The participants, therefore, consisted of both first-year repeat CA students and second-year non-CA students; the common denominator was the fact that all of the participants studied CA the year prior and all of them failed to achieve the admission requirements to continue with the second year on the CA programme (these requirements are stricter than simply passing all first-year modules). The reason for involving these students was that they all failed in their initial attempts to pursue a CA qualification and could, therefore, provide valuable input on the reasons for student failure. By involving students who converted to another qualification, it could also be ascertained whether these students have done so because they did not satisfy the second-year admission requirements or because of career prospects perceived to be more suitable to them.

The focus group discussions were held fairly early in the year following the year that the students failed to achieve the admission requirements when the issues they experienced the first time round were still fresh in their minds.

The participants were selected randomly. According to Davies (2007:168-173), focus groups should ideally consist of six to eight participants, whereas De Vos *et al.* (2011:366) extend the maximum to ten participants. Based on the number of potential participants (i.e. students who failed to achieve the second-year admission requirements) from each campus relative to other campuses, it was decided to involve two focus groups from the Potchefstroom campus, and one each from the Vaal and Mafikeng campuses. Eight participants were identified for each of the four focus groups, but some participants failed to attend the discussions. The final number of students who participated in each focus group is as follows:

**Table 1.2: Number of focus group participants**

<b>Group</b>	<b>Number of participants</b>
Potchefstroom Group 1	8
Potchefstroom Group 2	7
Vaal	8
Mafikeng	6
<b>Total</b>	<b>29</b>

According to De Vos *et al.* (2011:367) and Davies (2007:149), qualitative research ends when saturation is achieved, i.e. until the themes emerging from the research start to repeat often. After the four focus group discussions were held, it became clear that the same types of issues were raised by all the groups. It was, therefore, decided not to involve any more participants in the project. Although adequate coverage is not a sampling requirement for qualitative studies, it was comforting to note that the total number of participants to the project at the time represented 45% of the total population of students who failed the second-year admission requirements the year prior to the focus group discussions.

#### *Data gathering and analysis of results*

Around a table, the focus groups discussed the issues they experienced in their first year of CA studies. The author (as the researcher) was part of the circle, but ideas were generated by the groups themselves. To ensure a continuous flow of relevant conversation, the author prepared a series of discussion points, each designed to aid in answering the research questions.

All focus group discussions were tape-recorded and then independently transcribed. The transcriptions were systematically analysed after multiple readings to identify all the emerging themes that could help explain why these students failed to achieve the second-year admission requirements. This was done by extracting all the quotes from the transcripts of commentary by students and then categorising each quote into a possible theme. Careful judgement was applied in retaining only those issues that clearly emerged as themes across the focus groups. Quotes in Afrikaans were meticulously translated into English, ensuring that the meaning stayed the same.

### **Project 5: An evaluation of an integrated case study and business simulation to develop professional skills in South African accountancy students**

#### *Research design and instrument*

The results of the first four research projects highlighted possible deficiencies in the NWU's CA programme in respect of skills development of students. This revelation, coupled with the requirements of SAICA's CF, provided the motivation for the fifth research project in which a

prototype of a complex, integrated case study and business simulation was developed as an educational tool to simulate a real-life accountancy practice scenario.

This case study was designed to integrate all the specific competencies in the CF (namely strategy, risk management and governance; financial management; auditing and assurance; accounting and external reporting; taxation; and management decision making and control), as well as the pervasive skills of ethics and professionalism, personal attributes and professional skills (refer to section 1.1 on page 5 for more detail about the CF). It was believed that the case study would be a noteworthy attempt to create more opportunities in the CA programme to impart specific business skills on students. Moreover, it was intended that the case study be given to the students as a group assignment running over a number of weeks. This was the first endeavour to integrate all competency areas and/or subjects into one assignment at undergraduate level, whilst combining a vast array of soft skills such as teamwork, report writing, information technology, presentation and communication, not mentioning the fact that the case study demanded from the students the application of judgement.

The students' experience of the case study assignment was assessed by way of a survey at the end of the assignment. This survey included various questions mainly on a five-point Likert scale aimed at gathering the views of the participants on how they experienced the assignment. The survey was also concluded with questions of a more qualitative nature.

#### *Participants and timing*

As mentioned above, the case study that was developed was only a prototype with the intention of refining this tool for long-term implementation within the programme. For this purpose, the prototype was piloted at the Mafikeng campus of the NWU as part of the fifth research project. The third-year CA class at the Mafikeng campus consisted of 56 students who were divided into groups of six to seven students each for purposes of the assignment. The Mafikeng campus (the smallest of the three) was specifically chosen for the study because of practical reasons (the author performed all groundwork himself) and because the students from this campus were identified as those with the greatest need for such an intervention. Therefore, the author anticipated noteworthy results from the survey that followed the execution of the prototype assignment. It was intended that the survey results and general experience of the pilot run of the assignment would inform the NWU on how to refine the tool for full implementation at all campuses in subsequent years.

As explained above, this project flowed from the results of the first four research projects and was conducted shortly after these projects. The group assignment was given to the students near the end of their third academic year in the CA programme to allow for an appropriate integration of all

competency areas which were covered adequately at the appropriate level in the programme only by the end of that year.

#### *Data gathering and analysis of results*

Completed surveys were captured in a spreadsheet. The data were imported into the statistical software package IBM SPSS (SPSS, 2011), where it was processed into functional information in order to describe the results obtained from the data. The author also reported his reflection on and concerns raised by the experience based on field notes he kept throughout the process.

#### **In conclusion**

The above exposition indicates various different research methods used to obtain a holistic view of the challenges faced in the CA programme. Refer to chapter 2 where a strong case is made for the use of mixed methods in research projects.

All five projects were completed within a time frame of two years. It is argued that it was acceptable to use feedback from one project as input into the next, seeing as there were no significant changes in the design of the programme, syllabi and course content, lecturers, study material, type of student and general manner of delivery of the course during these two years. In general, it was not expected that student abilities and perceptions would change significantly in such a reasonably short period of time.

## **1.6. Chapter overview**

### **Chapter 1: Objectives, scope and course of the study**

In this chapter some background information regarding South African higher education goals, as well as the prior apartheid regime in South Africa and its effect on the education system, is given, together with an overview of the requirements of professional accountancy bodies. A brief history of the NWU and some details regarding its CA training programme are also provided. Furthermore, the study is motivated in light of the current accountancy skills shortage in South Africa and SAICA's transformation requirements. The research problem and hypotheses are defined and the research objectives are formulated. The methodology to be followed in the study is explained thoroughly, namely a literature study and various mutually dependent empirical studies.

### **Chapter 2: Contemporary research methodology in the accounting and education sciences: Philosophy, sociological paradigms and grounding theories**

This chapter explores some of the philosophical questions that underline research in the social sciences, as well as some of the existing sociological paradigms in research and various theories that may be relevant for research in the accounting sciences and accounting education, in particular. The chapter is concluded with an evaluation of the most appropriate paradigms and

theories that guide the research documented from chapter 3 onwards and that drive the research questions and the methodologies followed to answer each of them.

### **Chapter 3 (Article 1): Balancing academic and professional pedagogies: A comparative study of two accounting departments in South Africa and the United Kingdom**

The purpose of this chapter is to answer the first primary research objective [objective (i) in section 1.4, page 11]. The introduction states the three specific research questions after providing evidence of the tension between academic outcomes and professional and/or vocational education. The section on the research method then makes a strong case for conducting cross-national comparative case studies in higher education. The next few sections answer the research questions by presenting a comparison of the governing frameworks of the two countries, a comparison of the two specific accounting departments used as cases in the study, and an analysis of focus groups with staff at either institution with the aim to determine the catalysts for changes in curricular, teaching and learning, and assessment approach. This is followed by a thorough discussion of the inferences that can be made from the findings, including a link between the results and institutional and education theories, thereby making a meaningful contribution to extant literature.

### **Chapter 4 (Article 2): Barriers to academic performance of accountancy students at a South African university**

In this chapter the second primary research objective [objective (ii) in section 1.4, page 11] is addressed. The chapter starts with an introduction to establish the context and motivate the reasons for studying the barriers to academic performance of accountancy students, as well as to formulate more specific research objectives. Possible barriers are then identified based on an overview of extant literature, followed by a section that describes the research method used to answer the research question, which involves a statistical analysis of data gathered from a questionnaire administered to 790 undergraduate CA students at the NWU. The results are then presented, which include descriptive statistics on various barriers to academic performance, a comparison of students in different study years, and a summary of qualitative remarks raised by participating students. The implications of the results are discussed in more detail and recommendations are made to address the most significant barriers identified. The chapter is concluded with a summary of the main findings, an argument on its value and contribution and, finally, the recognition of its limitations and the identification of possible areas for further research.

### **Chapter 5 (Article 3): Transforming the accountancy profession: Educational challenges at a historically white South African university**

This chapter answers the third primary research objective [objective (iii) in section 1.4, page 11]. The introduction sets the scene by first providing background to the transformation challenges in South African higher education, specifically in accounting education, and then by stating the specific research question and objectives. The next section delves deeper into the transformation problem by highlighting some regulatory aspects, and the subsequent section summarises relevant literature on transformation and issues of ethnicity in accounting education. This is followed by a description of the research method (the same questionnaire as in chapter 4 was used), after which the findings are given and discussed. These involve mainly a comparison of black and white students regarding their perceptions of achievement barriers at the NWU. The conclusion section offers recommendations on what the university can do to remove the stumbling blocks that prevent it from transforming its student demographics and also explains the wider contribution of the research, followed by some direction given for further research.

### **Chapter 6 (Article 4): A qualitative investigation into student failure in accountancy at a multi-cultural South African university**

Through an analysis of student focus group transcripts, this chapter qualitatively investigates the reasons for failure of first-year accounting students at the NWU and, as such, it addresses the fourth primary research objective [objective (iv) in section 1.4, page 12]. The chapter commences with an introduction that sketches the problem of failure and dropout in higher education. The next section presents a review of recent South African and international literature on the topic, both in higher education, in general, and in accounting education, in particular. The research method is clarified in the next section, followed by an account of the themes that emerged during the focus group interviews, which includes noteworthy quotes from student commentary. The conclusion then reflects on the implications of the findings and defends the contribution of the study in light of its limitations.

### **Chapter 7 (Article 5): An evaluation of an integrated case study and business simulation to develop professional skills in South African accountancy students**

In response to the fifth primary research objective [objective (v) in section 1.4, page 12], this chapter contributes to accounting education by providing evidence of student experiences of a new assignment created to develop and assess accounting students' professional skills. The introduction motivates the reasons for the study and sets out its three specific aims. The next section reiterates the calls in the literature for incorporating skills development in accounting curricula, and offers evidence of the successes of some of the educational tools that can assist in this regard. The questionnaire used to gather perceptions of student experiences of the assignment are described in the section on the research method, followed by an explanation of the

case study and business simulation assignment that was developed for this study. The participating students' overwhelmingly positive feedback on the assignment is then presented, from which conclusions are drawn.

## **Chapter 8: Reflection, conclusions and recommendations**

This section reflects on the work done in this thesis. It recaps the various research methods used and summarises the main findings. It then demonstrates how each primary research objective was addressed. This is followed by numerous recommendations and an explanation of what the NWU has already accomplished (following this research) with regard to ameliorating its CA programme. Furthermore, this chapter offers a visual representation of the interconnectedness of the various interventions recommended. The unique contributions and wider implications of the thesis are encapsulated in the third last section before putting this in the context of the study's limitations and concluding with useful recommendations for further research.

### **1.7. Conclusion**

Being human means that we make mistakes and that our creations contain weaknesses. However, what makes humans unique is our strive to constantly innovate, improve and better ourselves and the world we live in. The NWU's CA programme, like any other around the globe, contains weaknesses that can be rectified. The problem is, however, not always a lack of resources or a resistance to change; often we do not have knowledge of that which is wrong and, therefore, we remain ignorant. Introspection and self-criticism are needed to achieve excellence, and academic research provides the platform to inform such changes.

In this chapter some background information was provided in the build-up to the motivation for the study, culminating in the research problems, hypotheses and objectives. A description of the methodology followed was also given and the chapter was concluded with an overview of the chapters to follow. In chapter 8 the research objectives and hypotheses will be revisited to verify that they have been adequately addressed and tested.

It should be evident from the literature presented earlier in this chapter that South Africa, with its serious skills shortages in the accountancy profession, can benefit hugely from research in the accounting education domain. For the NWU, in particular, the specific research objectives formulated in this chapter will ensure that it obtains extensive information imperative for designing strategic moves to ameliorate its flagship CA programme and better contribute to the delivery of excellently trained and highly competent CAs.

The benefits of research in this field are, however, not limited to South Africa, as aptly summarised in the following two quotes from an insightful editorial essay by St. Pierre *et al.* (2009), with which this chapter is concluded:

As the lingua franca of business life (in addition to its significance in governmental, educational, and other not-for-profit organizations), accounting has a universal importance. Moreover, the rapidly changing context in which accounting plays its role places changing demands on accounting practitioners who need an appropriate educational preparation if they are to be effective. This, in turn, requires the development of expertise on the part of accounting educators in order that they might provide that educational underpinning.

Beyond the practical benefit that education research provides to those who read it by informing them of effective teaching approaches and practices, research benefits those who conduct it. Research in general makes us into more enquiring individuals, more reflective practitioners, and assists our teaching by making us better scholars. But research does not, in itself, make things any better for our students unless it can be woven into our teaching practice so as to generate similar impacts upon our students.

These thoughts highlight the worth of accounting education research. In the context of the current study, an investigation on how to ameliorate the NWU's CA programme should not only prove invaluable, but also offer insights well beyond the domain of this institution.

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