A comparative study of student retention and throughput in a postgraduate distance education programme

Mercy Sondlo

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Prof. F.J. Nieuwenhuis

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DECLARATION OF ORIGINALITY

I, Mercy Sondlo..... (Student Number:23276879), hereby declare that this dissertation for the degree Magister of Education at the University of Pretoria is my own work. It has not been submitted for a degree or examination before at this or any other university or college. I have fully indicated and acknowledged all the sources I used or quoted as complete references.

Signature : Sondlo

Date : 21 October 2013

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1.1 Introduction

In the National Plan for Higher Education (NPHE 2001) the Ministry of Education stated that the long-term goal of increasing the overall participation rate in universities in South Africa *'...must be complemented by strategies to increase graduate outputs in the short to medium-term in order to ensure that the current demand for high-level managerial and professional skills is satisfied'*. The Department asserted that this goal requires that over the next five to ten years, the priority for universities must be to improve the efficiency of graduate outputs from the system. The plan further stated that the Ministry expected all institutions to prioritise and focus their efforts on improving the efficiency of the outputs from the system based on the following benchmarks for graduation rates:

Table 1.1: Benchmarks for Graduation Rates

Qualification-type	Graduation rate	
	Contact	Distance
Up to three years: undergraduate	25%	15%
Four years or more: undergraduate	20%	10%
Postgraduate: up to honours	60%	30%
Masters	33%	25%
Doctoral	20%	20%

It is now ten years since the plan was released and existing EMIS data sets provide very little data on whether these benchmarks have been achieved and which strategies were developed by distance education providers to support the throughput rate specifically as far as teacher education programmes are concerned.

As an institutional researcher I am concerned with the standards in higher education and **the dropout rates** of learners at tertiary level. Institutional research is concerned with gathering and analysing institutional data and information to inform institutional planning, policy and decision making processes. I am therefore interested in whether distance education institutions have been

successful in achieving the goals stated in the NPHE (2001). Secondly, looking at the dismal performance of learners in the school system over the last decade and the numbers of teachers who have enrolled for Advanced Certificate in Education (ACE) programmes, I wondered how many of those who had started in these programmes actually completed these programmes in the minimum or maximum required time. Since answers to these questions are not readily available in existing EMIS data sets, I decided to conduct research into these aspects as I believed that this would enable universities that cater for distance education programmes in teacher education to get a sense of how they are progressing towards achieving the NPHE benchmarks. Additionally, it might be useful to be able to compare themselves with other HEIs. This research would also reveal the type of strategies that are improving throughput rates in distance education.

Currently, the higher education system around the world is facing numerous challenges such as access, student success, student retention and throughput, and the quality of teachers, to mention a few. In sub-Saharan Africa and elsewhere, there is a critical shortage of teachers and a large percentage of those in the system are unqualified (Council of Higher Education, CHE, 2009) hence the need for teacher upgrading through the ACE and BEd (Hons) programmes. This has further complicated the education system as global trends point to an increased demand for higher education, yet the costs and funding of higher education is unmatched (Subotzky, 2003). Paradoxically, higher education has to ensure that it attracts high quality learners and ensure that they are retained in the system, improve success and learner satisfaction experiences, and increase graduation rates (Tinto 2004). This situation has rendered higher education the challenge of responding to the need to produce qualified, competent professionals such as teachers through training to upgrade their qualifications. The challenge is further compounded by high failure rates at the schooling level. Consequently, increased numbers of learners from the schooling system who enter higher education are unprepared resulting in high dropout rates, stop-out, transfers and low graduation rates, partly as a result of unqualified teachers.

A second challenge relates to teacher upgrading programmes such as the Advanced Certificate in Education (ACE). According to the Norms and Standards for Teacher Education (2003) educators with only a diploma or certificate qualification could upgrade their qualification through the ACE to bring them to a REQV13 equivalent, and there was also the opportunity for many to continue with an honours degree. Educators who made use of this opportunity had never done any undergraduate studies, but were able to participate in the honours degree

programme. Many made use of distance education programmes to further their studies towards the BEd (Hons) degree.

To this end, distance higher education is seen to be the main vehicle for driving the process of widening access of students into higher education, including teacher training and advancing teaching and learning in a cost effective manner. The Ministry of Higher Education and Training (MHET) developed a Draft Policy Framework for the Provision of Distance Education in South African Universities in May 2012 to govern the provision of distance higher education South Africa. This policy reaffirms and positions distance education as the vehicle for increasing access to learners not only from previously disadvantaged communities, but also adult learners, learners who do not meet the entrance requirements into programmes offered by contactinstitutions, students at risk of exclusions due to personal social circumstances, geographical distance, or poor quality or inadequate prior learning experiences. Through the Draft Policy Framework, the MHET acknowledges the role of distance education in South Africa which includes:

1. Providing access to students for whom traditional, full-time contact education opportunities are either inappropriate or inaccessible.
2. Seeking to expand access to educational provision to significantly large numbers of learners, through shifting patterns of expenditure to achieve economies of scale by amortizing identified costs (over time and large student numbers).
3. Providing low enrolment niche programmes that are required by students across the country, such as Arts/Music teachers.
4. Producing and making available high quality learning resources, designed and developed collaboratively, to enhance and support the entire higher education system, including foci on unemployed/non-student youth, rural development initiatives and professional training for unemployed graduates.
5. Offering outstanding modules for students at contact institutions who require one or two modules to complete the necessary requirements for proceeding to their next year of study, or to complete their qualifications.

So far, distance education in South Africa is committed towards ensuring that there is an enabling environment for meeting these pressing demands on higher education. For instance, the University of South Africa (UNISA), which is an Open Distance Learning institution, has

attracted large numbers of students globally. Although a number of universities did offer the BEd (Hons) degree through distance education programmes, UNISA, University of Pretoria (UP) and University of the North West (NWU) are seen as the main providers in this regard. These universities are in a good position to shed some light on the throughput rates of the honours degree students and the strategies that they have developed to improve the retention and throughput rates. In this research I explore the distance education models within two institutions for the BEd (Honours) in Education Management programmes (this will be further explained in my research methodology). I interrogated the extent to which these universities have made progress using their unique models and strategies. In doing so, I was in a position to investigate and to report on the degree to which the NPHE targets have been met and to share insights around these issues with the rest of the higher education community. .

The MHET has also identified the *highest priority requirements* for distance education provision which are spelt out in the Draft Policy Framework for the Provision of Distance Education in South African Universities, 2012. Amongst these is a requirement to 'invest in improved student support to address unacceptably low levels of retention and throughput including the provision of multi-purpose centres, probably in collaboration with the government and with other providers' (Draft Policy Framework for the Provision of Distance Education in South African Universities, Department of Higher Education & Training, 2012a). My study is particularly concerned with this requirement concerning improving student support in order to address the challenge of low levels of retention and throughput. Therefore, my study should add value to distance education provision through investigating the strategies used in distance education programmes focusing on the BEd (Hons) in Education Management to determine the extent to which these strategies support teaching and learning, and student support in distance education. Also, the study provides some insights into challenges regarding these and makes some recommendations for improvement where necessary.

1.2 Background information

As already mentioned, student retention and throughput is a critical issue not only in South African higher education but also in other parts of the world. In that light, higher education has an obvious critical role to play to address this challenge and thereby to contribute to Human Resources Development (HRD) in South Africa and elsewhere (DoE 2001; DoL 2001). Its central role in this regard is to provide the number and range of graduates, in the fields and levels

required, to the rapidly changing labour markets (Subotzky, 2003). In South Africa the key issues are access, equity and redress of the past apartheid imbalances in the education sector in order for the country to produce the calibre of graduates that can meet economic and market needs, nationally and globally. Scholarly debates and research is ongoing on academic standards and educational reform in South Africa to meet international standards.

A study by the National Committee on Higher Education (NCHE. 1996) was commissioned to redress past imbalances in our education system and transform the South African higher education. The NCHE (1996) report highlighted the need for the restructuring of the curriculum in order that a common understanding is reached on curriculum statements for the qualifications as stipulated in the National Qualifications Framework (NQF), the Higher Education Act 101 of 1997, and the Higher Education Quality Committee (HEQC) programme accreditation criteria.

The post-1994 period witnessed considerable policy changes in the education system in South Africa. Following the recommendations of the NCHE, the *Education White Paper 3: A Programme for the Transformation of Higher Education of 1997* was released which called for the establishment of a single, coherent and coordinated higher education system. It set out the policy framework on which higher education was to be governed, which contained goals, values and principles. Amongst others, the principle of promoting equity of access and fair chances of success to all seeking to realise their potential through higher education (Yorke 2004) was entrenched. Following the recommendations of the Committee, in 2001 the National Plan for Higher Education was developed that called for the restructuring of the higher education system. In that regard, it provided for an implementation framework based on the driving instruments: national Planning, Funding and Quality Assurance. A National Working Group was commissioned to provide guidance on the restructuring of the institutional landscape of higher education. In 1995, the South African Qualifications Act was promulgated and the National Qualifications Framework was developed in response to these policy imperatives. These developments were in line with the rationalisation of higher education to allow for vertical and horizontal articulation across qualifications and programmes.

These policy changes impacted on teacher education as well and this process gave birth to the review of the delivery of teacher education colleges and the incorporation of colleges of education into higher education institutions. The period also witnessed the merging of higher education institutions from 31 to 23 public higher education institutions to rationalise

qualifications and boost the quality of delivery in higher education and teacher education in particular, yet the challenges of student retention and throughput still persist.

The Norms and Standards for Educators (2000) which served as a regulatory framework for the roles and requirements of teachers in their respective fields also provide norms in terms of the nature and type of qualifications required from educators. In terms of the policy, educators should demonstrate competencies and should have the relevant qualifications in order to be a qualified teacher. In this regard, teachers are expected to demonstrate their abilities to fulfil the following roles:

- Learning mediator
- Interpreter and designer of learning programmes
- Leader, administrator and manager
- Scholar, researcher and lifelong learner
- Community, citizenship and pastoral role
- Assessor
- Learning area/subject/discipline/ phase specialist

The DoE Report of 2008 purports that *'There has been a general improvement in the qualifications of educators with the previously large proportion of un-qualified and under-qualified educators being reduced by means of in-service upgrading programmes, the reality is that there has been a decline in the quality of teachers in South Africa'.*

To elaborate further, the findings of a study that was conducted jointly by the Centre for Education Policy Development (CEPD), the Human Sciences Research Council (HSRC) and the South African Institute for Distance Education and researchers (SAIDE) at a number of universities in 2008 drew *attention to 'the weakness of the teacher corps'* (HEQC Report 2010). On the same subject, the DoE report (2008) acknowledged that there are challenges in the development of scarce skills such as mathematics, science and technology and that strategy should be implemented to address this challenge. According to the report, attention should be paid to *'1) raising the participation and performance of black learners (especially females) in Mathematics and Science at Senior Certificate level; 2) providing high-quality education in the three subjects to all learners and 3) increasing and improving human resource capacity to deliver education in the three subjects'.*

National strategies were developed to address these shortcomings in teacher education to 'beef up' teacher education in South Africa. The ACE programmes were implemented (see the National Teacher Education Audit, 1995). In addition, other arrangements were made as a means of not only increasing access into higher education, but also improving teacher education in South African higher education. These strategies involved using open distance education to improve upon the quality of teacher education. A brief discussion of teacher education through open distance learning is provided below.

Firstly, and foremost for the purpose of this study, it might be worth noting that teaching and learning in Open Distance Learning (ODL) contexts is a complex phenomenon due to the nature of the ODL environment itself and how teaching and learning takes place within it.. Hence, it is vital to understand the phenomenon of distance education and the strategies it uses in teaching and learning if we are to understand its role and whether distance education is meeting its objectives. Considering that ODL institutions are mandated to increase and widen student access in many countries around the globe, their efforts and strategies around improving student access which have been sufficiently achieved in some parts of the world including South African, cannot be reviewed in isolation of student success and throughput. The major challenge which remains to be addressed is student success and retention, making student retention strategies the primary or critical concern for higher education and distance education in particular.

The provision of teacher education through Open Distance Learning in South Africa is seen as contributing towards the provision of highly skilled and competent professionals in the field of education, through increasing access, and high tech open learning resources and Information and Communication Technology (ICT). Subotzky (2003) stated that *'graduates must be equipped with the optimal mix of high-level knowledge, skills and generic competencies, relevant to the nation's developmental priorities, in today's increasingly knowledge-driven society'.*

Furthermore, higher education is seen to be the main driving force behind economic growth nationally and globally; it is, therefore, imperative that the impact of the system is continuously monitored through research and peer data sharing. This claim is, however, premised on the assumption that data on retention and throughput rates are readily available and may prove to be difficult in a situation where data is either unavailable or insufficient to do evaluative research on teacher training and continuous professional development.

According to Creed (2001) teacher education, whether by distance or contact college means, is a much under-researched and under-theorised area. Current debates and discussions around the world are advancing the position that distance education '*can enable countries to train a larger numbers of teachers in a shorter time and with lower costs than can conventional campus-based teacher education*' (Danaher et al. 2010). The Open University in the United Kingdom, which operates on the principle of 'open' access with no entry requirements necessary, has extended its operations to include developing Open Educational Resources (OERs) freely accessible to students. It has extended access to students across the United Kingdom and is now attracting students from all over the world, and these students can be anyone and everyone (Wilson, 2008). Although distance education has the potential to provide low cost education and widened access to higher education, widening access has little value if those who gain access cannot be retained for the duration of the programme or if they take an extended period of time to complete their studies. This calls for an approach that is cost effective and which takes advantage of economies of scale to enable increased access of students into higher education but at the same time, ensures continued focus on the quality of delivery to produce highly competent graduates and increase throughput (Draft Policy Framework for the Provision of Distance Education in South African Universities, May 2012). The challenge therefore is to ensure student retention and throughput rate at distance education institutions. In reality the inequalities in access to resources and technology such as computers and the Internet are limitations for distance education to provide free quality education. The majority of students from disadvantaged communities and those from low socio-economic backgrounds do not have the advantage of access to learner support and to learning materials other than that supplied as part of their study programme. Higher education institutions that provide teacher training by means of distance education are aware of these challenges and have adopted different approaches to bridge the distance divide.

An analysis of the enrolment trends in higher education shows that there has been sustained growth in headcount enrolments over the period from 2004 to 2009. Evident is the increased access in distance education programmes including the programmes reviewed in this study. For the purposes of this research which focuses on two contact providers of distance education programmes, enrolment and graduation trends for the period 2004 to 2009 are considered. Since 2003 one of the two participating institutions has enrolled more than 50 000 students in their BEd (Honours) programme and graduated more than 27 000 students. What remains to be analysed in the light of this study are the enrolment and graduation trends to determine whether the national benchmarks set in the NPHE are being met.

1.3 Research question

The overarching research question is: **To what extent have universities succeeded in increasing their throughput and graduation trends to meet the targets set in the NCHE?** To answer this question, I needed to determine not only numerical gains made, but also the strategies developed to support student throughput. For the purposes of the research, I focused on UP and NWU as traditional contact institutions offering the BEd (Honours) programme through distance education. In addition, to make comparison between the two more specifica, I focused only on the BEd (Honours) in Education Management programme. I also addressed the following sub-questions:

Sub-questions:

1. What strategies were developed by the two institutions to better the throughput and retention rates in the programmes?
2. What were the trends in the throughput and retention rates in the BEd (Hons) programmes in the three institutions for the period 2001-2010?
3. How did the strategies used help in bringing the institutions closer to the benchmarks set in the NPHE?

1.4. Rationale for the study

Student retention and throughput is a critical issue facing governments worldwide, and South Africa is no exception. High dropout rates are challenges that higher education institutions worldwide are grappling with in order to ensure that they provide quality programmes and are accountable to learners and governments. Since the focus of this study is on student retention and throughput in the BEd (Hons) in Education Management, I would decided to look at the gap in the literature on teacher education as the National Review of Education Programmes that was conducted by the CHE focused only on the BEd and master's degree programmes offered at public higher education institutions. The review applied the criteria developed by the CHE for programme reviews of which only one of the criteria has a direct bearing on retention and throughput. As Thomas (2009) suggested '*as a key performance indicator in university quality assurance processes, the retention of students in their studies is an issue of concern worldwide. Implicit in the process of quality assurance is quality improvement'*. This further suggests that there is an assumed correlation between student retention and throughput and quality assurance, hence, my study should add to

the findings of the national review of the teacher education by looking at an area which did not receive attention during the review.

In the same vein, inconsistencies or lack of sufficient information on student retention and throughput, as noted by Yorke (2004) and as evident in the gap in HEQC's Report on the National Review of Teacher Education Programmes, has encouraged me to investigate further this area with a view to understanding and thereby contributing towards the improvement of student retention and throughput in South African distance education. The challenges of insufficient data or unavailability of data to inform retention strategies and policy (Buglear 2009) may limit further research and investigation. For instance, in the Australian context, *'the difficulties in understanding the patterns of, and reasons for, discontinuation are marginalized by the limited data sources...there are few longitudinal studies with sufficient focus to inform policy and practice, and little is known about the trigger points for and process of withdrawal'* (Yorke 2004). This suggests the need for further research and engagement in this area.

I begin by providing a brief background relating to the HEQC national review on teacher education. In 2004 the HEQC conducted a national review of teacher education programmes in response to the concerns *'expressed by the Minister of Education and other stakeholders about the quality of teacher education provision in the country and the need to have a better sense of their quality, costs and benefits, and relevance to country's needs'* and *'the request in the Department of Education's (DoE) National Plan for Higher Education that the HEQC should prioritise the review of the quality of postgraduate programmes'* (HEQC, 2004). The national reviews of programmes relates to the re-accreditation or review of existing programmes offered by public and private HEIs.

Four programmes in teacher education were reviewed by the HEQC between 2005 and 2007. This inquiry was aimed at finding out the *'state of the provision of teacher education in the Master's in Education (MEd), the Bachelor of Education (BEd), the Postgraduate Certificate in Education (PGCE) and the Advanced Certificate in Education (ACE)'*. The purpose was to *'account to the broad field of education, assess how far they are in meeting the quality assurance requirements stipulated in the accreditation criteria and minimum standards established by the HEQC'* (CHE, 2010). It should be noted that there is an obvious omission of the honours degree programmes in this brief. The report revealed a number of challenges in the ACE programme which I will not deliberate on in this study. I intend to investigate part of the report's silence on the BEd (Hons) programme which was not included in the HEQC reviews. It would be overly optimistic for research of this scale to revisit all the nineteen criteria developed for programme accreditation in a study of this nature; I will therefore

focus on one of the criteria (retention and throughput) that are regarded as essential for quality assurance in higher education. The framework document of the CHE (CHE 2004) formulates Criterion 17 as follows:

CRITERION 17: *Student retention and throughput rates in the programme are monitored, especially in terms of race and gender equity, and remedial measures are taken, where necessary.*

In order to meet the criterion, the following is required at minimum:
(i) The programme coordinator has access to and monitors information on retention and throughput rates for the programme, also in terms of national benchmarks. Appropriate remedial action is taken where necessary.
(ii) The race and gender profile of the qualifying class increasingly resembles that of the entering class.

What is important is that this criterion makes direct reference to national benchmarks and it is inferred that this relates to the benchmarks set by the NCHE document. Through this study I intended to investigate this gap and to interrogate graduation and success rates in the BEd (Hons) programme with a view to addressing the strategies and objectives in meeting the Ministerial targets and subsequently sharing my findings with the higher education fraternity. Part of this study relates to the strategies developed by distance education providers to determine the degree to which they have assisted in moving institutions closer to the targets set by the NPHE. This specifically relates to the reference in Criterion 17 of the HEQC programme accreditation criteria to remedial action to be taken by institutions to improve throughput and retention rates.

In the same vein, peer benchmarking should inform education practices in higher education as it could assist in improving quality of delivery and consequently, the student success and retention rates. As Higher Education is seen to be the main driving force behind economic growth nationally and globally, it is therefore imperative that the impact of the system is continuously monitored through research and peer data sharing. The Higher Education South Africa Report, *Higher Education Impact: Universities in the South African economy, September 2007*, presents highlights of the impact of higher education on the economy based on the research it commissioned on 16 higher education institutions. The report emphasises that benchmarking practices and the profiling of higher education should be undertaken as presently there have not been any such

initiatives or research in this area in South Africa. Most studies in this area have been in Europe and elsewhere. My research involved benchmarking two South African institutions, looking at the BEd (Hons) programmes they offer, and this exercise helped me identify gaps and weaknesses through benchmarking and determining standards. The study has thereby contributed towards the improvement of student retention and throughput and promoting benchmarking to raise success rates in South African higher education. I intend to use the findings of this study to inform the improvement strategies of student retention and throughput in the two South African institutions and plan to share my insights with the higher education community.

1.5 Literature review

Student retention and throughput is a global phenomenon facing higher education and it dates back to the 1960s (Reason 2003). We can look back to works of Astin (1964), Bayer (1968) and Vaughan (1968) for a historic perspective on student retention in higher education (Reason 2003). This phenomenon has become *'big business for researchers, educators, and entrepreneurs alike'* (Tinto 2006) as the focus is on increasing the rate on student persistence and graduate rates. Significant improvements are evident by some higher education institutions in addressing student retention, however, there is still much that needs to be done (ibid.). In addition, much still needs to be understood about student persistence and throughput in the context of improving institutional effectiveness and achieving national imperatives and goals.

Professor Vincent Tinto, the Chair of the Higher Education Programme at Syracuse University and Senior Scholar at the Pell Institute, focused his research studies on the issues surrounding student retention, attrition and throughput rates in the USA. He conducted studies on investigating the critical issues on student retention and the challenges in enhancing student success in higher education in the USA. His studies revealed the policy gaps in the USA Federal Government's efforts to address student attrition. According to Tinto, the challenge was not with access into higher education as some attempts at increasing access have been made and achieved; rather it is about enhancing student success and improving graduation rates. This situation mirrors the challenges facing the South African higher education in terms of student retention and throughput where the challenges remain with ensuring that students are retained and student success rates are improved.

Tinto (1975) defined the scope of challenge of student retention and attrition in the US Colleges of higher education. In the article, *Student Retention and Graduation: Facing the truth, living with the consequences* (2004), Tinto explored issues of student retention and throughput rates amongst learners from low income backgrounds in the USA, of post secondary education, during 1995 to 1996. He discusses the attrition of learners from this socio-economic background and puts forward some strategies for the improvement of student retention and throughput for institutional effectiveness. According to Tinto (2004), the problem of student attrition as manifested in the USA affects a particular sector of the population, mainly African-Americans with a low socio-economic background. . He also noted that over the years, the success rates of these students dropped. He therefore conducted a survey tracking a cohort of three million students enrolled in the 1995 to 1996 academic year to investigate *'why students leave college before completing their program of study'*. Tinto (2004) then recommended effective strategies to the Federal government on how to improve and promote student retention and graduation.

Akoojee and Nkomo (2007) stressed the importance of defining student success within the quality framework supported by continuous monitoring and research to *'track the responsiveness of measures to achieve national transformational objectives'*. They argued that access is very critical and our education system has to absorb more people from previously disadvantaged backgrounds, especially increasing the participation rates of women and black students. They advocate for an approach that places increased access at the heart of the matter to champion equity and redress. However, it is important to note from these authors that redress or transformation of our education system shouldn't compromise quality. They further argued that the strategies used in redressing the past imbalances in the education and training system, should take into account quality issues. In this light, they viewed the policy on Academic Development in universities as being limited and lacking in terms of supporting the implementation of a holistic quality assurance framework to address access issues once and for all. They held that access and quality are interlinked and should be effectively and efficiently monitored against national imperatives, such as efficiency, equity and redress. They found the current Academic Development systems in universities wanting and proposed that effective strategies should be put in place. They emphasised the move away from 'access with participation' to the adoption of 'access with success' as an effective route for ensuring that transformative imperatives are realised in higher education in South Africa. Access with success is tied to quality as it deals with ensuring increased access of black students but also the success of these students. Increased student enrolments of black students in higher education should reflect enrolments of students in niche

programmes such as Engineering, Accounting, medicine, etcetera, that were previously reserved for white students. With increased enrolments in higher education and distance higher education in particular, there are challenges of success as there are inefficient strategies to deal with support mechanisms for these students. There are certainly quality issues tied up with equity and redress at the heart of the matter.

In distance education, the challenge is further complicated by the nature and character of distance education itself; amongst others, and much debate continues on what measures of quality should be attributed to distance education vis-à-vis contact institutions. Though distance education is seen as the vehicle for increasing access and improving the quality of learners in the education and training system, the complexities surrounding its nature of delivery, amongst others, needs to be addressed in the light of the consequent impact on resources, capacity, student support systems, funding, and the like, and the ultimate threat to student success.

It is worth noting, with much evidence from the literature, that considerable effort on the part of institutions of higher education and states alike (Tinto 2006) has been put into addressing student retention and throughput. However, there still exists a challenge with regard to improving throughput rates in most higher education institutions globally. Therefore, student retention and throughput ought to be explored further to enable higher education to impact meaningfully on the quality of its graduates. Elaborating further, Tinto (2006) observed that

> *but for all that, substantial gains in student retention have been hard to come by. Though some institutions have been able to make substantial improvements in the rate at which their students graduate, many have not. Indeed the national rate of student persistence and graduation has shown disappointingly little change over the past decade (NCES, 2005a). The fact is that despite our many years of work on this issue, there is still much we do not know and have yet to explore. More importantly, there is much we have not yet done to translate our research and theory into effective practice.* (Tinto 2006)

The reflection made above on the little if not insignificant changes over the past decade is a concern for higher education worldwide. Unless significant improvements are made in student success, retention and throughput, the desired objectives of widening participation in higher education will not be achieved (Thomas 2009). This argument is echoed in the literature reviewed below on an international, regional and national level.

Firstly, I would like to stress that higher education institutions globally have accountability responsibilities to the wider communities and the education system. Thomas (2009) maintains that there are financial implications for students, society, governments, and the economy if students do not complete their studies. According to Goldman (2005) *'in order to survive and fulfil their missions, universities must successfully recruit and retain students'*. Access into higher education which has improved globally, needs strengthening, and effective strategies including teaching and learning ought to be put in place to improve student success and graduation rates globally. To achieve this objective, therefore, teaching and learning strategies that are effective, efficient and sustainable should be implemented to enable higher education to produce high-level and competent graduates to meet global market needs, for nation development in its entire dimension, in an increasing knowledge-driven society (Subotzky 2003). Theories on teaching and learning are discussed later to deepen our understanding of the strategies and practices in distance education and to provide a theoretical framework that informs this study. Therefore, for the purpose of this study, I reviewed literature on student retention and this is presented below followed by the literature on teaching and learning in an ODL context.

1.5.1 International trends

To help me conceptualise student retention and throughput on an international level, I drew on works by Tinto (2006), Buglear (2009), Crosling, Heagney and Thomas (2009), Yorke (2004) as well as Negash, Olusola and Colucci (2010). The literature conffirmed the critical challenge of student retention and throughput on a global scale and the measures placed on higher education institutions worldwide for accountability and responsiveness (Thomas, 2009). Through the literature review, I was able to conceptualise and to probe further the issues regarding student retention and throughput rates in teacher education. It also provided me with a conceptual framework and a theoretical framework on the current trends and challenges regarding student retention and throughput rates and helped me to understand the context and practice of teacher education beyond South Africa. It further guided me to 1) structure my research, 2) provide a knowledge base for my research area 3) propose how to analyse my research findings and 4) formulate recommendations based on my findings to inform decision making structures and institutional management.

In the USA, only 60% of students at four-year colleges and universities graduate within six years, and between 2003 and 2008, students at four-year institutions who did not persist into their second year accounted for:

- $6.2 billion in state appropriations for higher education institutions;
- more than $1.4 billion in state grants to the students;
- $1.5 billion in federal grants to the students.

The institution also incurs costs less easy to quantify yet potentially quite weighty. These include the cost to the institution's reputation, diminishing public support, and increased calls for accountability (Fusch, 2011).

Student attrition and retention rates are defined as *'the percentage of students in a particular year who neither graduate nor continue studying in an award course at the same institution in the following year'* (Crosling, Heagney & Thomas 2009, adapted from the Department of Education, Science and Training (2005), Australia). In the UK there are two measures of retention which, according to Crosling et al. (2009) translate to institutional performance indicators which are 'completion rates' defined as *'the proportion of starters in a year who continue their studies until they obtain their qualification, with no more than one consecutive year out of higher education'* and the 'continuation rate' which is *'the proportion of an institution's intake which is enrolled in higher education in the year following their first entry to higher education'*.

At this point, having defined reasons for attrition and retention rates in higher education, it is important to understand the reasons of attrition. Several inter-related factors account for the discontinuity of students in higher education, some which are beyond the institutions' control: *'poor preparation for higher education, weak institutional and/or course match, resulting in poor fit and lack of commitment, unsatisfactory academic experience, lack of social integration, financial issues, and personal circumstances'* (Croslinget al. 2009). This view presented here, however, tends to attribute the reasons for non-persistence of studies to the students themselves and with very few reasons attributed to the institution. Additional reasons for students' non-completion of their studies include socio-economic status, educational background of parents, time factors, workload, lack of proper support structures, ill health, pregnancy, HIV/AIDS, learner unpreparedness for higher learning, family responsibilities especially in the case of women in a traditional setting (for example, juggling house chores, parenting/looking after small children, taking on more female roles resulting in having less time to study) and the lack of career guidance in schools.

In distance education, the situation is even more complex and demands new perspectives on student persistence and a thorough understanding of the distance education environment. Woodley (2004) proposed a model that fits into the distance education environment which is different from Tinto's model. He suggests that an expanded and elaborated model should be used because students in this context are affected by options and decisions *'based upon a type of cost-benefit analysis and their goal and institutional commitments affect, and are affected by, how well integrated they are with the system in social and academic terms'* (Woodley 2004). Therefore, new perspectives, moving away from the 'terminal' could effectively inform practice in ODL considering the complex nature of the ODL itself. In addition, research points to a correlation between low socio-economic status and university dropouts, and very low participation rates from low socio-economic groups around the world, including African higher education. Difficulties in financial circumstances of students are cited as the most common hindrance to persisting in higher education or attaining a qualification. In the USA, Australia, England, South Africa, studies show that for students from poor backgrounds, chances of success in higher education are limited compared to their counterparts from well-off financial backgrounds.

Tinto (2006) and Thomas (2009) identified active engagement of learners as the pillar of student success, retention and throughput. Tinto (2006) suggested that in order to improve student retention and throughput as educators or policy makers we need to ask the question *'how should we help students learn?'* instead of *'how should we teach students?'* This is directly related to our education methodologies especially teaching practices whereby teaching and learning is teacher-centred Tinto (2006). My observation of the South African education system mirrors this concern as the teaching practices in schools and some universities restricts the students from being critical and active participants in the learning processes. Teachers are not equipped with the skills to educate learners to become critical thinkers, hence the high failure rates. The areas of professional development of teachers and resources in the schooling sector needs revisiting to strengthen these critical areas. Certainly short-term measures are insufficient in addressing these issues (Kriek and Grayson 2009:186) rather holistic long-term professional development of teachers including lifelong learning, reflective practice, programmes to develop teachers' content knowledge and pedagogical content knowledge of learning areas, collaboration with peers, support structures for teachers, and capacity building of teachers (Kriek and Grayson 2009:186).

Tinto (2006) identified factors which lead to students' completion in the USA. According to him, effective learning happens in conducive learning environments. Therefore, to improve student retention and throughput, we need to focus our attention on improving the learning

environment. According to Tinto, the challenge is not with access into higher education as some attempts at increasing access have been made and achieved; rather it is about enhancing student success and improving graduation rates.

The Access to Success report (2010) identified some intervention strategies based on best practice in Europe and Africa *'parallel institutional surveys on access and retention in higher education conducted across a sample of 126 African and 19 European countries',* aligned to the Bologna protocol that defines a framework within which to approach access and retention, fostering lifelong learning across the globe. This includes, amongst others, increasing funding, changing funding of education towards an outcomes based system, boosting student support systems, ensuring the supply of pre-entry information and preparation, proper induction and transition support, curriculum development, social engagement, through establishing communities of learning (Tinto 2004), student support, data and monitoring (Thomas et al. 2010). In the next section I briefly examine the limitations and strengths of these various strategies.

Firstly, though these strategies have been instituted in some countries in Europe and Africa, they are not showing effective impacts yet on improving student retention especially in Europe. This is due to a number of reasons ranging from an existence of large pools of diverse student body in terms of race, gender, disabilities, international students, part-time students, mature students, local students, in some cases underrepresented groups, low socio-economic groups etcetera, whose needs are not properly addressed and met. According to the Access to Success Report (2010), policies have not been adhered to by European higher education systems and there is a tendency of these policies being undermined as increasing access and retention are not seen as a priority. In some instances, systems are not developed fully and there is a lack of a common understanding and interpretation of terminology relating to widening participation, lack of uniformity or a collective approach to widening participation by the same member states of the European Union. At the same time, the increase in tuition fees, no proper accommodation for non-traditional students, in the midst of the global recession, makes it so difficult to improve the retention of students. This has been cited as the major challenge facing the higher education system as there are no financial support systems, and in Europe a larger percentage of students from lower socio-economic groups are dropping out and facing financial exclusions when compared to Africa. Moreover, a combination of internal and external environmental factors are influencing the higher education system and hampering the progress of student retention. These are staff attitudes, student counselling services, and the unpreparedness of students from the

secondary school system entering higher education, causing dropouts in the first year of higher education experience (Access to Success 2010).

Of importance to note in the African context is the correlation between dropout rates and students from low socio-economic backgrounds, students from less economically developed regions, and female students. This pattern cuts across the developing world and in the developed world a section of the population that is of low socio-economic status (Tinto 2004). The researchers recommend that more interactive approaches to teaching and learning whereby learner-centred approaches are used encouraging active participation, is one way of addressing challenges of student retention. In addition, some governments in Africa have put in place interventions that include amongst others, adopting non-discriminatory policy, adopting flexible admission policies, offering special programmes, visits to potential students, offering flexible learning paths, recognition of prior learning and provision of financial services to students. Other African countries have resorted to implementing affirmative action, quota, reservations, distance learning, and student financing schemes to address the challenges of increasing or widening access to higher education. According to Negash et al. (2011), dropout *'is most highly correlated with the students' lack of financial resources'*. However, the study also showed that there is a lack of accurate statistical information at the institutional level regarding disadvantaged student groups, student background and dropout rates, which will be crucial for future research and intervention. Therefore, these limitations are an indication that further research should be conducted to find out the efficacy of the interventions mentioned above.

In addition, there is a need to build partnerships and collaborative strategies that are effective and would yield the desired outcomes for higher education to respond to human resources development globally. In Africa, there are issues such as poverty and the creation of an elitist higher education system that tends to promote inconsistencies in policy implementation and practice to the detriment of the teaching and learning environment. 'Brain drain' in most African universities and the imbalances in the student to lecturer ratios, overcrowded lecture theatres, poor infrastructure, and lack of access to computers and the Internet have had a negative impact on student retention and throughput.

1.5.2 Africa and sub-Sahara

In the African context, the challenges of student retention and throughput manifest themselves differently from the developed world. Broad socio-economic and political issues have had an impact on the African higher education system. With most of Africa lagging behind in terms of

development, African higher education institutions cannot keep pace with their counterparts in the developed countries in relation to competition and internalisation of higher education (Negash, et al. 2011). African universities' experience of student retention to a great extent is influenced by 'underdevelopment and poverty' and is linked to the commitments that African universities have towards meeting the Millennium Development Goals (MDGs) (ibid.). The challenges, therefore, according to the findings of a survey of 32 universities in 16 African countries by Negash, Olusola, and Colucci (2011) on *Access, Participation and Retention in Africa* revealed that African universities are lagging behind their developed counterparts in as far as financing higher education is concerned. Participation rates are very low, particularly in Sub-Saharan Africa with 5% of the age group participation rate in higher education as compared to 26% worldwide. Since African universities are severely incapacitated in terms of resources and finances, capacity issues surface and the need to collaborate with the developed nations has been identified in order to promote higher education in Africa and globally (ibid.).

Subotzky and Prinsloo (2011) concurred with this and further argued that the challenges around enhancing student success are *'particularly formidable'*. According to Subotzky and Prinsloo (2011) much research in this area embodies northern (developed country) models which are not appropriate for the developing countries, and they call for an African model that is representative of African realities. They recommend the development of unique ODL models and a framework for building a sustainable retention strategy that would tackle challenges associated with student attrition at UNISA and within developing contexts. For the purpose of this study these issues are explored and investigated to understand what is being done at UP and NWU to address the challenge of students' retention and success. This is of paramount importance to enable higher education to impact meaningfully on the quality of its graduates.

The main issues and challenges facing African higher education are varied ranging from 'ensuring access to dealing with democratisation of knowledge; from student and staff retention to dealing with financial bottlenecks; from increasing to widening participation' (Crosling et al. 2009); from ensuring quality of education (Materu 2007) to enhancing employability of graduates; and from availability of appropriate national policies to promoting international collaboration (Negash et al. 2011). Other challenges relate to the limitations of capacity. For instance, considering the massification of higher education and/or expansion in the demand for higher education in Africa, there is limited capacity in terms of physical infrastructure and person power (Negash et al. 2011). These issues, coupled with the increased admission of learners into higher education, have implications for retention and throughput. The findings of the survey commissioned by

Negash, Olusola and Colucci (2011), indicated that with regard to underrepresented groups, respondents felt that lack of resources (both in terms of government allocation and the institution's access to other resources) is hampering access.

The main challenges are barriers to access to tertiary education of underrepresented and disadvantaged groups including students from low socio-economic backgrounds, economically backwards regions, students from poor households, female students, first generation students, students with physical or learning disabilities, students from migrant families, and students from socially discriminated castes. . This suggests that the issues are broader ranging from systemic issues to individual situations, such as the lack of effective policies to deal with these issues to individual financial difficulties.

Larger proportions of student dropouts from university are common amongst female students and underrepresented groups in African universities. Common variables that influence attrition in African universities have been identified as *'poor preparation and commitment, mismatch of area of interest and field of placement, poor social integration, lack of appropriately developed instructional and assessment methods. Reasons for limited retention also include, in addition to lack of infrastructure and financial constraints, oversized classrooms, lack of staff capacity in terms of number and qualifications, and poor quality'* (Negash et al. 2011).

1.5.3 The South African context

In the South African context, Letseka and Cosser (2010) made a similar case analysis on the South African higher education system and discovered that *'if student attrition is a worldwide phenomenon, the problem is acute in South Africa'.* In 2005, the DoE's Directorate on Higher Education Planning reported that, of the 120 000 students who enrolled in higher education in 2000, 36 000 or 30% dropped out in their first year of study. A further 24 000 (or 20%) dropped out during their second and third years of study. Of the remaining 60 000 (or 50%), fewer than half (22%) graduated with a generic bachelor's degree within the specified three-year period (DoE 2005). These figures reflected in the DoE report show generic data not reflecting specific data of enrolments in critical fields such as teacher education and programmes aimed at improving the quality of teaching and learning., Not represented, for example, is the ACE programme, that is aimed at addressing the qualifications of teachers, demand and supply of teachers, and the quality of teaching and learning at the schooling level. It is imperative to analyse the trends in teacher education and this study aims to address that gap.

Moll, Nyamapfene & Lestseka (2004, 1995) asserted that *'one of the key factors contributing to student attrition in South Africa has been shown to be school leaver's under-preparedness for higher education*' and financial difficulties. Unprepared learners have limited access to higher education and those who do access higher education do not progress well, hence institutions are faced with the challenge of implementing effective interventions to ensure that student support mechanisms are in place and monitored. The challenges of low retention rates still persist in South African institutions.

To that effect, Bunting (2000) argued that the goals of the 1997 White Paper in increasing the numbers and proportions of science, engineering and technology to achieve national development had not been met by 2000. The systems' output of graduates remained low in relation to enrolments totals. Moreover, females are currently under-represented in science, engineering and technology. The legacy of Apartheid has shaped the patterns of student retention, success and throughput in the South African context. The Historically White Institutions (HWIs) had comparatively higher retention rates than the Historically Black Institutions (HBIs) during the period 1996 to 1999 (Bunting 2000). Moreover, the system failed to produce higher graduation rates with only 17% of students registered at a university completing their degrees or diplomas and only 10% of students registered at a technikon completing theirs (Bunting 2000). In South Africa and elsewhere in the world institutions with a high reputation attract students who are more academically prepared than their counterparts. In the case of distance education there are limitations for students to access the Internet and other e-resources. These challenges have implications for student retention and throughput rates.

The 'Access to Success: Fostering trust and exchange between Europe and Africa' project (2010) was commissioned by the European University Association (EAU) in collaboration with the Association of African Universities (AAU), Norwegian Association of Higher Education Institutions (UHR), Flemish Interuniversity Council, Department for University Cooperation for Development (VLIR-OUS), European University Network (EUN), and European Students' Union (ESU) and echoes these concerns. The project was aimed at raising awareness of access and student retention in higher education in Europe and Africa, exploring collaborative strategies in response to the changing socio-economic environments, in order to promote inter-regional co-operation and partnerships between Africa and Europe, around issues of capacity building partnerships, student and staff mobility, and government/donor support (Access to Success, 2010). It highlighted some of the challenges related to access and student retention and acknowledged that attempts at addressing them in the form of national strategies and policies are being made on a global scale. The report indicated the complex nature of the student profile and

accessibility as well as student retention in Africa and Europe. It concurred with the literature that increasing and widening participation should be prioritised and called for a collaborative strategy between the "north" and the "south" in tackling the retention issue.

1.6 Research methodology

The methodology used for this research is qualitative research methods. A detailed discussion of the research methods including the research design and data collection techniques follows in Chapter 3.

1.6.1 Research approach

This research was based on a comparative study of two contact institutions offering Distance Education programmes in South Africa. The data obtained from this analysis will be compared with data from the two institutions. My research included the collection and analysis of secondary data from the faculties of Teacher Education at the institutions. The data mining compared variables of FTEs (full-time enrolments), drop-outs, and graduations and involved a cohort analysis. Thereafter, conducted some interviews with the Heads of Departments at two institutions to determine the risk factors in the strategies and how have they been addressed.

1.6.2 Theoretical framework

The pioneering theories of distance education are by Wedemeyer (1961) who introduced the concept of independent study or learning as opposed to correspondence education (Gokool-Ramdoo 2008). Prior to this there was no theory that defined distance education and its practice globally. According to Moore (1991) the first attempt on a theory on distance education was made in 1972. However, it is worth noting that over the years there have been attempts at developing a theory on distance education activities, its underlying initiatives and endeavours (Gokool-Ramdoo 2008). The one particular theory on distance education that is notable is Michael G. Moore's transactional distance theory (1991).

I drew on Moore's theory (1991) to inform my research as I sought to explore issues of student retention and the strategies used by distance education in ensuring increased access and improved throughput in distance higher education. The transactional distance theory informed my research because it looked at the strategies and practice of teaching and learning in distance education. It responded to my research question as it explains the *'special'* relationship that develops between teachers and students shaped by the distance between them, since students in

distance education are *'physically removed'*. Moore's (1991) theory also explored the underlying teaching and learning strategies and technology used to bridge the distance between the students and the lecturer in order for effective teaching and learning to take place. It discussed how internal and external factors influenced by the transactional distance impact on the practice of teaching and the teaching and learning strategies in distance education. It proposed that the transactional distance might have an influence on student retention and throughput in a distance education context. I could also use this theory as a tool to evaluate the effectiveness of the strategies used by distance education institutions in meeting the targets set in the NPHE in South African distance higher education.

Moore (1991) described the relationship between learners and lecturers in distance education as a 'transactional distance' in a theory developed in 1972 which later became known as the theory of transactional distance. The transactional distance relationship cannot be viewed simply as a *'geographic separation'* of the learner and the lecturer; it is a pedagogical concept (Moore 1991). Crawford (2009:9) explained: *'Moore explains that when referring to distance education, there is more than a geographical separation of learner and teachers, there is also a distance associated with understanding and perception also partially caused by geographic distance'*.

What Moore described as *'distance education is not simply a geographical concept: It is a concept describing the universe of teacher-learner relationships that exist when learners and instructors are separated by space and or by time. This universe of relationships can be ordered into a typology that is shaped around the most elementary constructs of the field – namely, the structure of instructional programmes, the interaction between learners and teachers, and the nature and degree of self-directness of the learner'* (Moore 1991).

Moore (1991) further observed that 'with separation there is a psychological and communications space to be crossed, a space of potential misunderstanding between the inputs of instructor and those of the learner'. This psychological and communications space and the underlying misunderstanding might have an influence on the realities (happenings) and learning experiences of learners in South African distance higher education. Learners who are studying less structured learning programmes allowing more interaction between tutors and learners are likely to be not affected by the transactional distance (Moore 1991). In South Africa and elsewhere there are attempts at developing less structured and more interactive learning activities and technologies to bring the tutor and the learner closer; this process is described as learner support in South African distance education. Factors influencing teaching and learning, such as the distance between the teacher and the learner and the mechanisms or strategies used to bridge

this gap, were critical to my study as I attempted to investigate how effective these strategies are in addressing these challenges of student success in distance higher education today. Moore (1991) mentioned three variables as strategies used in distance education in bridging the psychological and communications space, namely, dialogue, structure, and learner autonomy.

In looking at the strategies used by distance education and to what extent these are effective, I considered these elements and the *'universe of relationships'* which is the distance between the teacher and the learner and the nature of this relationship, to see if this has had an influence on student success in the provisioning of the distance education programmes in two South African distance higher education institutions, taking into cognisance the separation of learners from lecturers that has shaped the nature of delivery in distance education. Looking at these strategies and the factors that shape them provides new perspectives on reach out techniques/technology, especially valuable when one considers UNISA's global footprint.

Elements of separation in distance education can be addressed through strategies and techniques which unfortunately are enormously varied and there are many different degrees of transactional distance within distance education programmes (Moore 1991). Hence the discipline of distance education is complex and may call for various theories to inform different strategies. For instance, Moore (1991) suggested the use of more than one theory. He argued that *'there is a need for a theory of distance education administration, a theory of distance education history, a theory of distance learner motivation and so on'* (Moore 1991). To support this view, I used Systems theory to explain other variables within distance education such as learner motivation, self-directedness and the link with the three variables Moore (1991) explores in his transactional distance theory, namely, dialogue, structure and learner autonomy, to explore their correlation with student retention and throughput in distance education linked to higher education systems and the teaching and learning environment.

The systems theory was the brainchild of Ludwig von Bertalanffy who advanced the *Allegemeine Systemlehre* (General System Theory – GTS). He based his theory on the concept of systems moving away from a world view of "the world as chaos" and as "a product of chance" towards a concept of *'the world as organisation'*. Ludwig von Bertalanffy, an Austrian Biologist advanced the thinking behind systems being open to, and interacting with their environments. The concept builds on the notion of integration or a web of complex contexts weaved together. Systems theory can be regarded as '*a general frame of inquiry*' as Laszlo and Krippner (1998) held '*systems theory can model complex intrapersonal, interpersonal, intergroup, and human/nature interactions without*

reducing perceptual phenomenon to the level of individual stimuli… consequently provides a platform for the integrated study of complexity in the human experiencee'.

Their definition of a system is adapted from Russell Ackoff (1981) who claimed that '*a system is a set of two or more interrelated elements',* with the following properties:

- Each element has an effect on the functioning of the whole;
- Each element is affected by at least one other element in the system;
- All possible subgroups of elements also have the first two properties.

(Ackoff 1981, pp. 15-16)

They further defined a system as *'a group of interacting components that conserves some identifiable set of relations with the sum of the components plus their relations (i.e. the system itself) conserving some identifiable set of relations to other entities (including other systems)'* (Laszlo & Krippner 1998). This version of looking at a system entails parts of a system that include output, input and processes, goal directedness, etcetera.

This conceptualisation of a system ties in with Moore's theory of distance education in which he viewed best practice in distance education along the lines of systems theory. According to Moore (2005), there is much value to education when an integrated approach is used for diverse expertise in a teaching environment, especially in distance education. The theory advances the concept of a systems approach to teaching and learning at a distance. Moore (2005) explained that '*in both its study and its practice, distance education is best understood and best practiced when it is viewed as a total system'* and that in that way there are many benefits to the system as *'when studying distance education, it is not enough to know only the history, or the theory, or the principles of instructional design, or the organizational structure. None of these can be understood in isolation; it is necessary to all even though at an elementary level, thus providing the theoretical framework within which you can then choose specific areas for in-depth study and research'* (Moore 2005).

Moore's model is based on the practice in distance education. In the context of the South African higher education, this approach could be helpful considering our distance education system. A more integrated approach in ensuring greater input, output, goal directedness, procedures and processes in place meets standards and best practice across the globe. In this study I interrogated this practice by examining the strategies in place using two universities' distance education models for their BEd (Honours) in Education Management Programmes. I

examined the key areas at various programme levels e.g. input, output, feedback, et cetera bearing in mind the strengths and shortcomings of the systems approach to distance education, with a view to identifying gaps in measures for institutional effectiveness.

Shortcomings of the systems theory have been identified by authors such as Smith (1999), Fitzgerald (1998), Shaffer (2005) and Kastand Rosenzweig (1972). Common to all is that it would be shortsighted to view systems theory as a 'one size fits all' approach to education and training. According to these authors, there is a difference between the application and practice of systems theory across the higher education system and they also proposed that the concept of "wholeness" of the components of the organisation is too simplistic a view for application in a complex system such as distance education. For instance, Smith (1999, p. 34) claimed that

> *thus, we argue that distance education must be examined as a system, but to do so requires looking at the system and the variables that make up the system, sometimes a few at a time. While systems theory helps us understand how the pieces interact together, comparison studies simply help us understand some of the pieces. Therefore, the systems approach benefits understanding provided by comparative studies, and together, the two provide more answers than they do in isolation … research that examines the relationships of variables and research that examines the interrelationships among variables in systems, their sub-systems, and the super systems that impact them are important.'*

Basically what is argued here is the rather too "reductionist" approach of systems models in dealing with complex situations is insufficient and in some instances "incomplete" to respond to complex environments including distance education.

This argument is further advanced by Kast and Rosenzweig (1972) who concurred that *'one of the major problems in utilizing general systems theory is that we know (or think we know) more about certain relationships than we can fit into a general systems model…perhaps it is because we know a great deal more about the elements or subsystems of an organization than we do about the interrelationships and interactions between these systems'.* According to them, they found a common understanding of systems when the separate components were analysed in isolation rather than as an entity or integrated model. What also complicates the application of the model is its practice which varies with some institutions not in favour of the systems approach (Kast & Rosenzweig 1972).

In the light of the above, applying the systems model without considering its internal variables across the education and training system might undermine the individuals' experiences within the subsystems. Of importance to note in a distance education context is the experiences of learners

who are expected to learn through the use of technology which is too mechanistic and removed from lecture spaces. Therefore, there is a need to explain the interrelatedness of subsystems and social structures within subsystems taking into account, attitudes, perceptions, beliefs, motivations, habits, and expectations of human beings (Kast & Rosenzweig 1972). This would allow for common understanding of the complexities of interrelationships within sub-systems especially in a world that is moving towards globalisation and subject to change all the time. Education and training is not exempt from these trends because it is fundamentally dynamic and functions as a change agent within the globalised world system.

In the context of distance education, I tend to share this view that general systems theory should be embraced in a broader sense and its application should transcend the traditional view of the systems concept. Since distance education to a large extent is technological driven, communication channels at different levels and the operational features encompassing goal orientated, open-endedness, input and output, feedback loops (to mention a few), should be approached rather in an integrated but diverse manner taking into cognisance its components at all levels of the organisation. As Kast and Rosenzweig (1972) explained *'There is a tendency … in organization theory to accept general systems theory and then to move indiscriminately across systems boundaries and between levels of systems without being very precise…'* For example, when we use the term 'organizational behaviour' are we talking about the way the organization behaves as a system or are we talking about the behavior of the individual participants? By goals, do we mean the goals of the organization or the goals of the individuals within the organization? And they go on to emphasise that *'in using systems theory we must become more precise in our delineation of systems boundaries and systems levels if we are to prevent confusing conceptual ambiguity'.*

Therefore, for the purpose of this study, which entails investigating to what extent distance education in higher education helps to improve student retention and throughput, I employ a two-pronged approach:

- To understand general systems theory and its application in distance higher education.
- To investigate its strengths and weaknesses in order to inform and guide my study and to point out limitations in the research for further research.

I was cautious not to be too simplistic in my analysis of data by being open-minded to its application and its depth at the programme level, its strengths and limitations. The process involved a review of the systems model and the variables within sub-systems at the programme

level. Having said this, my analysis involved looking at input and output at the programme level by analysing the cohort data of students in the BEd (Honours) in Education Management, the feedback systems from a perspective of those involved in the management of the teacher education programmes through distance education at two institutions. This was achieved through in-depth interviews with those with this expertise.

This research explores the current situation in relation to teacher training particularly with regard to the role of open distance learning in South Africa. Systems theory provides a useful framework within which I could understand the perceived role of distance education in teaching and learning and how the concept is manifested in terms of explaining learner support, the role of tutors, capacity issues with regards to teaching and learning and assessment, input and outputs, feedback, learner satisfaction thereby, improving student success.

1.6.3 Research design

The research design is based on a cohort analysis of students in the BEd (Hons) in Education Management and Policy programmes in two universities. Secondary data was analysed to find out the enrolment patterns and trends over a certain period. In order to do a trend analysis of the cohort of BEd (Hons) in Education Management and Policy students, I used historical and current data from HEMIS and other sources of data such as the database (portal) of the institutions involved.

1.6.4 Data collection methods

The data collection methods involved qualitative and quantitative approaches and included the following:

- The collection and analysis of secondary data from HEMIS and institutional databases which includes the sourcing, extraction and analysis of student profiles on the institutions' portal and databases. This included: enrolments, graduation, dropout and stop out rates in line with my research question which sought to understand the retention and throughput rates in the BEd (Hons) Education and Management through distance education at the two institutions. Demographics (gender, race, age), educational background of parents, and socio-economic status were considered to determine the correlation between variables and to look for patterns. Secondary data analysis assisted in reviewing the data for a large scale of a cohort of students especially data from inaccessible respondents (Social Research Update, 1998).

- Policy documents on student retention and throughput strategies were reviewed.

- In-depth interviews with the Heads of Department of Teacher Education at the two institutions to determine how the strategies are addressing student concerns. By conducting these interviews, I intended to find out their experiences of teaching and learning in a distance education environment. The findings helped me in assessing the effectiveness of the strategies used in a distance education context. Primarily I was concerned with finding out how they dealt with any challenges in the teaching and learning processes impacting on learners' experiences. Therefore, my analysis of the policy documents, cohort data analysis and the interviews provided an opportunity for me to assess the role played by distance education in improving student retention and throughput.

1.7 Delimitations of the study

The scope of the study involving only two traditional contact institutions offering the BEd (Honours) in Education Management by distance education was a limitation. Institutional Data sets on student enrolments and graduation rates for the period 2001 to 2012 were not available due to changes within the institutions influenced the policy shifts (restructuring of higher education). This was a limitation in terms of analysing the (pre-2004) merger period to determine the historic, current and project into 2014.

1.8 Ethical issues

With respect to ethical considerations for this study, I considered the procedures followed in the institutions under study regarding the accessibility of information especially that pertains to their student databases. I obtained consent from the institutions concerned to use their databases (Hinds, Vogel & Clarke-Steffen 1997). Ethical clearance approval was arranged with the Institution A and Institution B's Research Ethics Committee prior to conducting the study – see Annexure B.

Chapter 2

Student retention and throughput: challenges and retention strategies

2.1 Introduction

The higher education system is facing numerous challenges such as access, student success, student retention and throughput, and the quality of lecturers, to mention a few. The demand for higher education has led to increased enrolments and expansion of the sector. However, the "non-standard' entry qualifications, of the majority students is raising questions about academic standards and outcomes, student experience and support' (McGivney 1996, p. 11), and poor retention and graduation rates have come under the spotlight. The challenge of poor student success and increased non-completion rates in higher education is not unique to South Africa. It is a global phenomenon and studies in this area have attempted to explain the complexities and the dilemma surrounding it globally tracing historical perspectives and major traditional theories (Astin 1977, 1985; Bean 1980; Bean & Metzner 1985; Spady 1971; Tinto 1975, 1993). Most research in the field of student retention acknowledges the influence of Tinto's (1975) theory on current studies on student retention (Demetriou & Schmitz-Sciborski 2011). Whilse some theories are 'testing and validating' Vincent Tinto's (1975, 1987, 1993) theory on social and academic integration of the student into the academic environment (Rendon, Jalamo and Nora 2000), other theorists (including Nora, 1987; Pascarella and Terrenzini 1991, Terrenzini and Reason, 2005) have attempted to modify and revisit Tinto's model of student departure. On the other hand, some researchers (Rendon et al., 2000; Edwards & Minton 2009; Demetriou & Schmitz-Sciborski 2011) have critiqued traditional theories as limited in addressing diversity and difference in higher education and advocated the use of different approaches considering the complexities and the range of challenges. Research conducted shows difficulties and complexities in tackling the quandary calling for innovative and/or renewed strategies to remedy the situation (Rendon 2000).

Furthermore, it is worth noting that whilst there is much effort from governments, higher education institutions, and research conducted to address this challenge, more needs to be done (Tinto 2006, Rendon 2000, Yorke 2004, Terrenzini & Reason 2005). Terrenzini and Reason (2005, p. 1) argued further that the '*low persistence/completion rates*' and gaps in performance that continue despite the enormous attempts at closing them, '*reflect an unacceptable and unnecessary loss of*

individual, institutional, and national talent and resources'. In South Africa there is an urgent need to address student retention and throughput as it impacts negatively on economic growth and human resources development in the context of lifelong learning and sustainability; further research is recommended. There is mounting pressure on higher education institutions to be accountable, responsive and to provide quality delivery in the light of cost implications for learners and government, hence government's prioritisation of monitoring student retention and throughput rates tied to funding based on the number of students who successfully complete their courses (Tresman 2002). Distance education is considered as key to address this quandary given its potential of widening access of students into higher education, teacher training and advancing teaching and learning in a cost effective manner. Given this, this chapter discusses the role of distance education and models used to improve student retention and throughput to determine whether targets set in the NPHE are met. It sets out by providing definitions of student attrition and retention to arrive at a better understanding of these concepts, taking into consideration their diverse contexts for benchmarking and also to accommodate the 'uniqueness' of contexts and environments.

2.2 Definitions of student attrition, retention and throughput

Measuring student retention and throughput is a complex and difficult task given the variety of definitions used between institutions (McGivney 1996; Crosling et al. 2009; van Stolk, Tiessen, Clift & Levitt 2007). For instance there are differences between the United States and Ireland but where data is measured it is mostly course-specific. In the United States, completion would refer to '*…the number of students who graduate within 150 percent of the normal course time (six years)*' and Ireland '*…differentiates between students who graduate on time and students who graduate late*' (van Stolk et al. 2007 p.xii). The UK measures retention using institutional performance indicators which are *'completion rates'* defined as '*…the proportion of starters in a year who continue their studies until they obtain their qualification, with no more than one consecutive year out of higher education*' and the *'continuation rate'* which is '*…the proportion of an institution's intake which is enrolled in higher education in the year following their first entry to higher education*' (Crosling et al. 2009, p.10). In other cases 'throughput rate' refers to '*…those who have succeeded out of the total number of candidates who have succeeded out of the total who actually sat for the examination*' (Akooje, McGrath & Visser (2008, p.268). Student attrition rates are defined *as '…the percentage of students in a particular year who neither graduate nor continue studying in an award course at the same institution in the following year*' (Crosling et al. 2009). Australia defines attrition as dropouts after the first year of higher education and defines the completion rate as the

graduation rate after seven years of higher education (Rand Corporation Report 2007, p. xii). These varied definitions reflect different interpretations based on different contexts, student dynamics and realities, and complexities of the terms used across higher education, and diverse practices within diverse settings. Blanket terms such as "dropout", "non-completion", "withdrawal", frequently used for any form of "withdrawal" before the course or programme's completion time (McGivney, 1996), may result in a lack of common understanding of terminology used resulting in difficulty to '…*compare official statistics and institutional studies*' (McGivney 1996, p. 21). In South African distance education students' graduation time is inconsistent and complex in that it is problematic to set a minimum time for graduation due to some personal or other circumstantial constraints students may experience. Moreover, the complexities in distance education demand new perspectives on student persistence. Given these complexities defining student retention might be very difficult, more especially since distance education utilises technologies in the form of ICTs in its method of delivery and considering the movement of students and patterns of enrolments that are mostly influenced by students' decisions to stay or leave. For instance, students may enrol and drop out in the first year of study and return again the following year to continue (stop-outs). In addition, many higher education institutions use an "open" enrolment system where students may register for a course any time during a given year.

Due to the inconsistencies associated with the definition of terms the following broad definitions will be used in this study:

- Retention rate: the number of students who enrol in a programme in a particular year and are actively engaged in teaching and learning without discontinuing their studies in that year and proceed to the following year at the same institution.
- Attrition rate: The percentage of students who are enrolled in a programme in a particular year but discontinue their studies in that year at the same institution.
- Throughput rate: the number of students who are enrolled in a programme and are actively engaged in teaching and learning activities and complete the course within a minimum or maximum time.

2.3 Reasons of attrition

Several inter-related factors account for the discontinuity of students in higher education; some which are beyond the institutions' control include these categories: '*…poor preparation for higher education, weak institutional and/or course match, resulting in poor fit and lack of commitment, unsatisfactory academic experience, lack of social integration, financial issues, and personal circumstances*' (Crosling et al. 2009, p. 10). Research in the area of student retention points to a variety of reasons for student attrition: common causes revealed in the Rand Corporation Report are: '*…the age at commencement of studies, the wrong choice of study course, transition from secondary school to HE, and financial reasons*' (van Stolk et al. 2007, p. xiv). In addition, the various causes that underlie students' decisions to discontinue their studies include '*…older students, students without clear motivation for attending H.E., students whose personal circumstances changed, part-time students, the initial choice of the course, personal problems, pre-HE preparation/schooling; financial burden of tuition fees, 'academic integration' and 'social integration"* (ibid.).

In African universities the common variables identified as having an influence on attrition are *'…poor preparation and commitment, mismatch of area of interest and field of placement, poor social integration, lack of appropriately developed instructional and assessment methods. Reasons for limited retention also include, in addition to lack of infrastructure and financial constraints, oversized classrooms, lack of staff capacity in terms of number and qualifications, and poor quality*' (Negash et al. 2011, p. 89). At the same time, larger proportions of student dropouts from university are common amongst female students and underrepresented groups in African universities. Other reasons cited for students' non-completion of their studies include socio-economic status, education background of parents, time factors, workload, lack of proper support structures, ill health, pregnancy, HIV/AIDS, learner unpreparedness for higher learning, family responsibilities especially in the case of women in a traditional setting (for example, juggling house chores, parenting/looking after small children, taking on more female roles resulting in having less time to study), and the lack of career guidance in schools (Negash et al. 2011). These reasons, however, tend to place the causes for non-persistence of studies solely on the students and very little attention is given to the institution. The underlying assumptions that dominate past and current thinking are rooted in perceptions of students as "deficient" and lacking the skills, conceptual background, and language proficiency necessary to succeed at higher education (Boughey 2010). Critical discourse however challenges this 'traditional' perception and advocates shifting the thinking and understandings of student's 'unpreparedness' through critically reflecting on the "Academic

Support" approach towards the "Academic Development" approach. This new way of thinking gave birth to renewed strategies that were two-pronged taking into cognisance individual and institutional reasons and realities (Boughey 2010). Institutional reasons may include setting too high standards, being unapproachable to students, institutional culture (that is foreign to students, especially first-year students), ineffective student support structures and systems, etc. These developments led to new interventions and practices at institutional levels that looked at student development mechanisms and language problems, programme structuring, assessment, and feedback. These issues are discussed later in the section on strategies and models to improve student retention.

2.4 Theories and literature reviewed on student retention

For a better understanding of the impact of student retention strategies internationally and nationally, I considered some student retention theories and practices globally on improving student retention and throughput. Firstly, I present a 'bird's-eye view' of the key trends and challenges associated with student attrition in general. Secondly, I discuss strategies used at international, regional and national levels drawing on literature from USA, Europe, African and Sub-Saharan Africa, and South Africa. Thirdly, models based on best practice on improving student retention and success rates are explored with a view to inform the study on the successes and lessons to be learnt from these retention strategies. Lastly, recommendations on strategic interventions that institutions are implementing to tackle gaps and barriers to success in promoting student support and institutional effectiveness for purposes of improving student retention and throughput are discussed.

2.4.1 Key trends and challenges

It is widely acknowledged that critical concerns for governments are accountability, institutional effectiveness and quality, and funding calling for the monitoring of retention and completion rates (Subotzky 2003; Tinto 2006, Tresman 2002) and "reputation management". Significant shifts in the higher education policy environment have been influenced by demands for quality and enhanced success. Of concern is the high dropout rates experienced in most countries. The Open University United Kingdom (2002) reports that among 29 OECD states the United Kingdom had the lowest dropout rates of 19% compared to the United States (37%), Germany (28%) and Australia (35%) in 1998 (Tresman 2002). African universities are struggling as well with sub-Saharan Africa having the lowest participation rate in the world (5%) (Altbach,

Reisberg & Rumbley 2009, p iv) and faced with a twin challenge of improving success rates in the face of poverty and poor infrastructure. Reaching worldwide conclusions on withdrawal rates is problematic given the variances in patterns of students dropping out from courses at a given time (McGivney 1999). For instance, there may be no students withdrawing from a course whilst more students withdraw from another (ibid.). However, research shows that withdrawal rates in degree courses attracting mature students (15%) are higher than standard courses (9%), and that distance education has higher withdrawal rates than other forms of provision (Tresman 2002; McGivney 1999).

2.4.2 The USA, Europe and Australia

Tinto (2006) focused his research studies on the issues surrounding student retention, attrition and throughput rates in the USA. His studies revealed the policy gaps in the USA Federal Government's efforts to address student attrition. According to Tinto, the challenge is not with access into higher education as some attempts at increasing access have been made and achieved; rather it is about enhancing student success and improving graduation rates.

Tinto (1975) defined the scope of challenge of student retention and attrition in the US Colleges of higher education by exploring issues of student retention and throughput rates amongst learners from low income backgrounds in the USA, of post secondary education, during 1995 to 1996. He discussed the attrition of learners from this socio-economic background and puts forward some strategies for the improvement of student retention and throughput for institutional effectiveness.

Tinto (2006) and Thomas (2009) identified active engagement of learners as the pillar of student success, retention and throughput. Tinto (2006) suggested that in order to improve student retention and throughput as educators or policy makers we need to ask the question "how should we help students learn?" instead of "how should we teach students?" This is directly related to South African education methodologies whereby teaching and learning practices have been teacher-centred (Tinto 2006). However, there are some attempts at student-centred methods and approaches to enhance the student experience, as illustrated in Chapter 4.

Another dimension in support of active engagement of learners relates to the academic and social integration of students in the teaching and learning environment. The Rand Corporation (2007) research findings on four case studies in Europe (Ireland and the Netherlands), Australia

and the USA echoed Tinto's view that student retention can be improved through the application of initiatives focusing on 'academic and social integration' of students in higher education. Attempts at strengthening learner engagement involve close monitoring of student retention. The Rand Corporation (2007) study also found that the sampled countries (Ireland and the Netherlands), and continents (USA and Australia) had policies on monitoring student retention and that there were commonalities on the macro level in terms of monitoring student retention (Rand Corporation Report 2007). The macro levels refer to government initiatives and these were using funding streams to support programmes for the improvement of student retention. On the micro level, which refers to the institutional levels, the findings show that there were some commonalities with respect to 'information provided to incoming students' (Australia, Ireland and the Netherlands); peer mentoring (Ireland, the Netherlands, the USA); transition courses and skills training (Australia, Ireland, the Netherlands, the USA); professionalisation of support staff and retention officers (Ireland and the Netherlands); and the creation of smaller learning communities (the Netherlands and the USA).

Linked to the 'academic and social integration' concepts is the learning environment. According to Tinto (2006) effective learning happens in learning environments that are conducive. Therefore, to improve student retention and throughput, there is a need to focus our attention on improving the learning environment as there are cost implications for institutions and the learner. Institutions incur costs less easy to quantify yet potentially quite weighty including the cost to the institution's reputation, diminishing public support, and increased calls for accountability (Fusch 2011; Nguyen & Le Blanc 2001) linking institutional reputation to institutional image associated with two principal components: functional and emotional (Nguyen & Le Blanc 2001, p. 303). The functional component is '…*easily measured whilst the emotional component is associated with psychological dimensions that are manifested by feelings and attitudes towards an organisation*' (ibid., p. 303). Institutional reputation is viewed as *a* '…*social identity and portrayed as an important and intangible resource which may significantly contribute to an organisation's performance, and even to its survival*' (ibid., p. 304), '…*with dropout cited as a key indicator of poor or substandard performance*' (Tresman 2002, p. 1). This supports the point made by Fusch (2011) above that an institution might tarnish its reputation and incur costs if it fails to perform in accordance with its mission or fails to improve student success rates.

In addition multiple approaches are used in higher education to address any gaps or limitations. The practice is implemented in most countries including Europe and the African continent. Research conducted shows that there are attempts are implementing integrated approaches and supplementary techniques to address student retention and success. The *Access to Success: Fostering trust and exchange between Europe and Africa project (2010)* report identified some intervention strategies based on best practice in Europe and Africa. The themes that emerged from the analysis to support the strategies included increasing funding, changing funding of education towards an outcomes based system, boosting student support systems, ensuring the supply of pre-entry information and preparation, proper induction and transition support, curriculum development, social engagement, student support, data and monitoring (Thomas, Jones & May 2010). These interventions are explored further in the strategies presented later. The Access to Success Project (2010) findings revealed that though these strategies have been instituted in Europe and African, they are not impacting equally and there are disparities between Europe and Africa. In that light, there are lessons to be drawn from the European, Australian and the USA experiences and strategic interventions presented above. Below is an account of the African and Sub-Saharan experience of student retention.

2.4.3 Africa and Sub-Saharan Africa

In the African context, the challenges of student retention and throughput manifest themselves differently from the developed world. Broad socio-economic and political issues have had an impact on the African higher education system. With most of Africa lagging behind in terms of development, African higher education institutions cannot keep pace with their counterparts in the developed countries in relation to competition and internalisation of higher education (Negash et al. 2011). Thus, the African universities' experience of student retention to a great extent is influenced by '*underdevelopment and poverty*' which is linked to the commitments that African universities have towards meeting the Millennium Development Goals (MDCs) (Negash et al. 2011) in related to increasing and widening participation rates.

Participation rates are very low particularly in sub-Saharan Africa with a 5% of the age group participation rate in higher education as compared to 26% worldwide (Altbach et al. 2009). There were approximately 150.6 million students enrolled in higher education in 2009. In low-income countries tertiary-level participation has improved only marginally, from 5% in 2000 to 7% in 2007. Sub-Saharan Africa has the lowest participation rate in the world (5%) (Altbach et

al. 2009). For instance, the Tertiary Gross Enrolment ratio (GER)[1] for South Africa remains at 16% compared to 20% of countries at the same economic development as South Africa. In comparison, the tertiary enrolment rate is nearly 60% in developed countries; the average is 34% in Latin America and 31% in East Asia (ibid.). Since African universities are severely incapacitated in terms of resources and finances, capacity issues surface and the need to collaborate with the developed nations has been identified in order to promote higher education in Africa and globally (Negash et al. 2011; Kangai & Bukaliya 2011).

Of importance to note in the African context is the correlation between dropout rates and students from low socio-economic backgrounds, students from less economically developed regions, and female students (Negash et al. 2011; p. 111; Kranz 2011, p. 8, Letseka, 2007). This pattern cuts across the developing world and in the developed world a section of the population that is of low socio-economic status (Tinto 2004; Pascarella & Terrenzini 1991; Walpole 2003; Tones 2009, Yorke and Longden 2004; Subotzky & Prinsloo 2011) and moreover the challenges around enhancing student success are 'particularly formidable' (Subotzky & Prinsloo 2011). Much research in this area embodies northern (developed country) models which are not appropriate for developing countries; Subotzky and Prinsloo (2011) called for an African model that is representative of African realities.

The main issues and challenges facing African higher education are varied. These include ensuring access; staff and student retention; supporting knowledge acquisition that is democratic; financial bottlenecks; increasing *and* widening participation, ensuring quality of education enhancing employability of graduates; appropriate national policies, and the promotion of international collaboration (Negash et al. 2011. p. 86). Other challenges relate to the limitations of capacity. For instance, considering the massification of higher education and/or expansion, the demand for higher education has increased in Africa and yet there is limited capacity in terms of physical infrastructure and person power (Negash et al. 2011).

The findings of a survey conducted by Negash et al. (2011) revealed that firstly, respondents felt that lack of resources both in terms of government allocation and the institution's access to other resources is hampering access for underrepresented groups and secondly, that '*drop-out is most highly correlated with the students' lack of financial resources*' (p.102). Thirdly, there is a lack of accurate statistical information at the institutional level regarding disadvantaged student groups, student background and dropout rates, which will be crucial for future research and intervention.

[1] Total number of students in higher education (in any age group) in a given year, expressed as a percentage of the 20ï 24-year-old age cohort.

In addition, poverty and the creation of an elitist higher education system tends to promote inconsistencies in policy implementation and practice to the detriment of the teaching and learning environment, brain drain in most African universities and the imbalances in the student to lecturer ratios, overcrowded lecture theatres, poor infrastructure, and lack of access to computers and the Internet have had a negative impact on student retention and throughput (Negash et al. 2011, p. 87; Ogunlana 2011, p. 108; Ndulu 2004). Therefore, these limitations are an indication that further research should be conducted to find out the efficacy of the interventions implemented.

Researchers have recommended that more interactive approaches to teaching and learning whereby student-centred approaches are used encouraging active participation is one way of addressing challenges of student retention. In addition, some governments in Africa have put in place interventions that include amongst others, '*adopting non-discriminatory policy', 'adopting flexible admission policies'* and *'offering special programmes'… visits to potential students, offering flexible learning paths, recognition of prior learning, provision of financial services to students. Other African countries have resorted to implementing affirmative action, quota, reservations, distance learning, and student financing schemes to address the challenges of increasing or widening access to higher education*' (Negash et al. 2011, p.99).

Overall, these lessons from other countries provide a lens for seeing the bigger picture in terms of the efforts and experiences of higher education institutions in improving student retention and success, as well as for benchmarking and promoting best practice, particularly in distance education environments. This would inform South African practitioners and researchers on the student retention phenomenon and how to benchmark interventions to best practice. Having said that, it is worth considering the South African experience to illuminate student retention challenges and experiences faced by the South African higher education and particularly in distance education as presented in the sections below.

2.4.4 South Africa

In the South African context, Cosser and Letseka (2010, p.3) noted that '*…if student attrition is a worldwide phenomenon, the problem is acute in South Africa*'. In 2005, the DoE's Directorate on Higher Education Planning reported that of the 120 000 students who enrolled in higher education in 2000, 36 000 or 30% dropped out in their first year of study. A further 24 000 (or 20%) dropped out during their second and third years of study. Of the remaining 60 000 (or 50%), fewer than half (22%) graduated with a generic bachelor's degree within the specified three-year period (DoE 2005). These figures reflected in the DoE report showed generic data not reflecting

specific data of enrolments in critical fields such as teacher education and programmes aimed at improving the quality of teaching and learning, for example, the ACE programme that is aimed at addressing the qualifications of teachers, demand and supply of teachers, and the quality of teaching and learning at the schooling level.

According to the Green Paper for Post-School Education and Training (Department of Higher Education & Training 2012b), South African universities are '*characterised by relatively low success rates – 74% in 2010 compared to the desired national rate of 80%*' (p. 41). This translates to a '*…graduation rate of 15% – well below the national norm of 25% for students in three-year degree programmes in contact institutions*' (p. 41). Though the trend shows some improvements in the proportion of postgraduate graduations evident in the growth from 679 doctoral graduates produced in 1995, 967 in 2000, 1 188 in 2005 and 1 420 by 2010, translating to '*26 doctorates per million of the country's total population, South Africa lags far behind countries such as Portugal (569 PhDs per million), the United Kingdom (288 per million), Australia (264 per million) Korea (187 per million) and Brazil (48 per million)*' (Department of Higher Education & Training 2012b, p. 42). This picture is disturbing seen in the light of the national desired participation rate of 23% by 2030 from 16% in 2012 and the supportive role that distance education must play in that regard. The envisioned expansion of higher education requires strategies built on sustainable models on improving throughput especially undergraduate outputs and this is central to the purpose of this study.

It has been noted that school leavers' under-preparedness for higher education is one of the key contributing factors to student attrition in South Africa and financial difficulties (Cosser & Letseka 2010). This point is emphasised in the Green Paper for Post-School Education and Training (Department of Higher Education & Training 2012b, p. 42), which asserted that: '*Improvement of undergraduate throughput rates must be a key strategy for increasing graduate outputs... Inadequate student preparedness for university education is probably the main factor contributing to low success rates*'. In the case of distance education, students are often enrolled who are in most cases not ready for higher education for various reasons including not meeting the entry requirements for study in some contactinstitutions.

Badsha and Cloete (2011, p.10), in the Department of Education cohort study (2011), further pointed out that, '*…after 5 years only 30% of the total first time entering intake of 2000 had graduated*'. Whilst 56% dropped out, 10% (estimate) transferred to other institutions, only 14% were retained, and even if 70% of transferring students and those still registered after five years eventually graduated, the cohort completion rate would be about 44%. For equity targets the

study revealed that the black student completion rate was '…*less than half that of the white student completion rate*' with '…*only 1 in 5 first time entering students graduated in regulation time* (ibid.).

Recently ongoing debates and academic discourse has focused on the quality of learners entering higher education impacting on student retention, success and throughput in higher education. Some attributing factors to sub-standards in education are the poor quality of teaching and learning, and the quality of teachers. In sub-Saharan Africa and South Africa in particular, there is a critical shortage of school teachers and a large percentage of those in the system are unqualified (CHE 2009), hence the need for teacher upgrading. The point being made here is that the challenge of low quality of teachers cannot be viewed in isolation or divorced from the bigger picture as this has direct implications for teaching and learning, learner experiences, learner preparedness for higher education and subsequently, student success and throughput, manifested as interconnected cross-cutting concepts and processes within the education and training system.

For the purposes of this study it is very important to note the trends presented above which illustrate the magnitude of the crisis related to access and students' dropout in the South African context. Akoojee and Nkomo (2007 p. 385) stressed the importance of defining student success within the quality framework supported by continuous monitoring and research to '*track the responsiveness of measures to achieve national transformational objectives*'. They argued that access is very critical and our education system has to absorb more people from previously disadvantaged backgrounds, especially increasing the participation rates of women and black students through a quality driven approach. The concept of access with success should be located within the national transformative agenda and institutions of higher education should implement institutional strategies to support the realisation of this strategic objective in South Africa. They argued that the policy on Academic Development in universities is limited and lacking in terms of supporting the implementation of a holistic quality assurance framework to address access issues once and for all. In an attempt to achieve this, interventions are ongoing at the policy and institutional levels.

The strategies that South African institutions are implementing to address issues related to access include monitoring dropout rates of first-year students and implementing interventions including bridging programmes (foundation programmes), language or 'epistemological' access, and strengthening communication using mobile technology such as text messaging, etc. These are

discussed in the section that deals with models on improving student retention presented later in the chapter. The interventions at policy level were influenced by the shifts in the political and socio-economic landscape, and research that informed the processes for the development of a policy framework to govern provision in distance education in support of initiatives aimed at improving the student's experience, learning environments, and outputs i.e. student throughput.

2.5 Policy initiatives and the role of distance education in South African in improving student retention

As was indicated earlier, the South African higher education system underwent transformation as a result of policy shifts, in response to societal needs and accountability demands, impacting on delivery of education and training, including distance education. The strategic imperatives emanated from the need for social justice and a democratic society built on access, equity, redress and quality education, and a training system and redress of past imbalances in the education and training system which had suffered from a long history of inequalities of opportunities, due to past apartheid policies that promoted race and gender inequalities (Nieuwenhuis & Sehoole 2013) that impacted severely on the standard of education reflected in the high dropout rates, poor student retention and success rates in our education and training system. The Education White Paper 3: *A Programme for the Transformation of Higher Education (1997)* called for the establishment of a single, coherent and coordinated higher education system based on these principles for the country to produce the calibre of graduates that would meet economic and market needs nationally and globally.

Based on this, a study by the National Committee on Higher Education (NCHE) was commissioned to make recommendations, aimed at the redress of past imbalances in our education system and to transform the South African higher education. The NCHE report highlighted the need for the restructuring of the curriculum in order that a common understanding is reached on curriculum statements for the qualifications as stipulated in the National Qualifications Framework (NQF), the Higher Education Act 101 of 1997, and the Higher Education Quality Committee (HEQC) programme accreditation criteria. Following from the recommendations of the NCHE, the *Education White Paper 3* (1997) set out the policy framework on which higher education was to be governed, which contained the goals, values and principles which were to be adhered to. It stipulated that '*contact and distance education institutions would be encouraged to provide effective and flexible learning environments on a continuum of educational provision, in which educators would be able to select from an increasing range of educational methods and*

technologies those that are most appropriate to the context within which they operate' (DoE 1997, p. 27). This was based on the Education Renewal Strategy (1992) that suggested that distance education and face-to-face education should not be strictly separated and that different forms of provision should be explored (Badat 2006, p. 185).

Distance education started in 1946 with the University of South Africa (UNISA) being declared '…*as one of the world's earlier correspondence universities*' (Badat 2006, p. 185). In 2004, the merger of UNISA, TSA and Vista was completed to form a single, dedicated comprehensive distance education institution. From 1993 a number of traditional contact universities including the participating institutions in this study also embarked on distance education (Badat 2006) focusing on retraining, up-skilling and upgrading teacher qualifications, but also of other qualifications in the field of theology and others. And over the years, with the advancement of technology, its uses and recognition of its benefits in learning environments, the trend shows the blurring of distance and face-to-face modes of delivery as more conventional contact institutions take on e-learning to support learning and with distance education institutions incorporating some contact sessions in its delivery. In addition, private higher education institutions also offer higher education programmes through distance education.

The National Plan for Higher Education (2001) set a target of 30% graduation rates for distance education and 60% graduation rates for contact institutions to meet in order to improve postgraduate throughput rates *in* '*order to develop the optimum mix of specific knowledge and generic skills required by the changing labour market and the new knowledge economy*' (Subotzky 2003, p. 356) and to '*satisfy the current demands for high-level skills*' (ibid., p. 371).

So far, distance education in South Africa is committed towards increasing access to students not only from previously disadvantaged communities, but also adult learners, and learners who do not meet the entrance requirements into programmes offered by contact institutions, students at risk of exclusions due to personal social circumstances, geographical distance, or poor quality or inadequate prior learning experiences. According to the Draft Policy Framework for the Provision of Distance Education in South African Universities (2012) the role of distance education in South Africa includes:

- Providing access to students for whom traditional, full time contact education opportunities are either inappropriate or inaccessible.

- Seeking to expand access to educational provision to significantly large numbers of students, through shifting patterns of expenditure to achieve economies of scale by amortising identified costs over time and large student numbers.
- Providing low enrolment niche programmes that are required by students across the country, such as Arts/Music teachers.
- Producing and making available high quality learning resources, designed and developed collaboratively, to enhance and support the entire higher education system, including foci on unemployed/non-student youth, rural development initiatives and professional training for unemployed graduates.
- Offering modules outstanding for students at contact institutions who require one or two modules to complete the necessary requirements for proceeding to their next year of study, or to complete their qualifications.

In addition, the MHET has identified the *highest priority requirements* for distance education provision which are spelt out in the *Policy Framework for the Provision of Distance Education in South African Universities (2012).* Amongst these is to 'invest in improved student support' and by so doing, unacceptably low levels of retention and throughput would be addressed including the provision of multi-purpose centres, probably in collaboration with the government and with other providers (Draft Policy Framework for the Provision of Distance Education in South African Universities, 2012). The *Policy Framework* (2012) further supports widened access with success in higher education of black and female students.

These policy initiatives are rooted in a critical orientation to research that informed transformative processes taking into account the realities of financial constraints and threats to access to resources and technology such as computers and the Internet. This is evident in that the majority of students from disadvantaged communities and those from low socio-economic backgrounds do not have the advantage of access to student support and to learning materials other than that supplied as part of their study programme. Whether distance education can live up to its 'promise' and 'expectations' will partly be answered in this study. Worth noting is the resultant increase in accessing higher education through the use of distance education models based on a blend of ICTs and some contact sessions in the South African context. This trend suggests that much progress has been made, however, what still remains to be seen is improved student success rates that translate into quality output from distance higher education and the production of competent graduates to meet national and international standards.

Considering the complexities surrounding distance education Woodley (2004) argues that adopting a 'pathological' approach to the phenomenon of attrition is not in his view healthy and cautions researchers and educators from treating student dropout as a malady. He maintains that distance education is complex and the dimensions of dropout phenomenon in this setting are varied reflecting the composite issues associated with causes for attrition of students. He further argues that the common thinking and understanding of researchers working within this area, is that dropping out is failure. Yet, students leave for various reasons, some positive and some not, like making right decisions by the student – and in certain instances they would have achieved their goals and be transferring from one institution to another (Woodley 2004). What is needed in this regard is turnaround strategies and/or interventions underpinned by theories and practices that take into consideration the complexities in this environment to enhance student retention including monitoring the education and training system, identifying at risk students, and managing dropout rates. A common trend shows the challenge of distance between the lecturer and the student in distance education programmes which I discuss below drawing on Moore's (1991) Transactional Distance Theory to explain the lecturer-student relationships and dynamics in the teaching and learning environment and to explore some models aimed at addressing this major challenge.

2.6 Moore's Transactional Distance Theory and distance education

The previous chapter presented definitions of distance education for purposes of understanding the field of distance education and its role in higher education. Common threads can be found in the literature defining distance education as a concept that is characterised by learning that takes place whereby the student and lecturer are separated in 'place' and 'time' (Kerka 1996). Students are seen as "physically removed' and there is no or limited face-to-face interaction between the lecturer and the student, described as the 'transactional distance' by Moore (1991). For instance, students involved in less structured learning programmes that allow for more interaction between lecturers and students are likely to be not affected by the transactional distance (Moore 1991). In situations where students are physically removed in terms of time and place, the transactional distance for similar programmes will be greater. In South Africa and elsewhere there are attempts at developing less structured and more interactive learning activities and technologies to bring the lecturer and students closer; thus, bridging the transactional distance. This process is described as student support in South African distance education. The mechanisms or strategies used to bridge the transactional gap are of key importance in my study

as I investigate how effective these strategies are in addressing the transactional gap and the challenges of student success in distance higher education.

Another element explored by Moore was the interaction between the lecturer and the student in distance education. The level and the degree of interaction between the lecturer and the student are often determined by the teaching strategy employed to bridge the distance between them. Lecturer-student interaction in distance education is the fundamental variable. According to Moore (1991), the 'transactional distance' is determined by the levels of engagement and the outcome of engagement between the student and the lecturers. In conventional contact education, the transactional distance is minimal because interaction between the student and the lecturer occurs on a daily basis. However, in this scenario there is less student autonomy as classroom engagement is facilitated and controlled by the lecturer whereas in distance education, the student is in control of the learning process and in most cases students make decisions with respect to their learning which is determined by their learning needs and experiences. The challenge of bridging the 'transactional distance' in distance education is an issue that has been debated in recent years opening up space for new initiatives and strategies such as communication media or Information Communication Technologies (ICTs) aimed at bridging that gap. Hence, the strategies on improving teaching and learning in distance education should be complemented by ICTs and other techniques including contact sessions or student support mechanisms to allow more interaction between parties in support of teaching and learning. Moore (1991) observed that the more the programme is structured, the lesser the interaction and the less the programme is structured, the more the interaction.

Students in a programme using ICTs have the advantage of two-way communication and of being in dialogue with their lecturers and peers a. The use of the Internet, mobile phones (text messaging), audio clips, computers are of assistance in bridging the transactional distance (Finch & Jacobs 2012). I emphasise the importance of ensuring that the transactional distance is minimised because a transactional distance has the risks of yielding misunderstanding or communication breakdown in terms of student inputs (response) and lecturer inputs (feedback) (Moore 1991). In fact, Moore (1991) suggested the application of various approaches including engaging diverse skills that are systematically organised and deployed and expertise of a number of specialists in distance education teaching. This is evident in planning and programme development phases where relevant people with expertise are engaged to ensure that the programmes developed fit in with the institution's mission, vision, purpose of the programme

and strategic objectives. At the same time various aspects of programme delivery is managed by experts in those specific fields.

If strategies are not effective in terms of the communications media or the structuring of the programme bearing in mind the dialogue that should take effect to encourage more interaction, this could result in students feeling alienated and/or dissatisfied with the learning environment and their learning experiences. For instance in the case of students in their first year in higher education, they have to get accustomed to the language used in higher education discourses which is common in lectures, residences, seminar and tutorial rooms, all academic spaces, policy documents, university statements, boardrooms etc., but which can be foreign to these students upon arrival. At the same time language barriers are experienced whereby students learn in languages which are second language to them, such as English, which is mostly the medium of instruction. They need to be equipped with the skills to tap into these spaces and learn how to master institutional discourses and these second or third languages to remove any sense of alienation and enable integration into the culture, values system, norms, and to access and comprehend content knowledge and disciplinary discourses (Clarence 2012).

Foundation phase programmes have built in academic development structures to address specifically language barriers; however, the appropriate and effective approach is a holistic one taking into account diverse and complex language barriers and not simply addressing grammar or syntax but transcending these to tackle '*complexities and values of disciplinary discourses and knowledge bases*' (Clarence 2012, p. 20) as well. Ensuring that students have a sense of belonging to the academic environment, and stay connected and are engaged continuously is the key to bridging gaps and different worlds of students and institutional dynamics. Therefore, we need to ask the question, what are the strategies in place and how effective are they in addressing the challenges? What are the implications of these strategies not being properly applied?

As a means of addressing these questions, it is worth noting the developments in higher education and distance education, in particular with the advancement of ICTs. The advancement of technology in education is changing the way pedagogy is practised and new methods are mushrooming, such as blended learning. These strategies are means to enhance student learning experiences and support to improve student success especially in distance education. In the past, distance education was mainly delivered through print media (print word) and by correspondence. With the advancement of technologies, the use of audiotape, videotape,

radio and television broadcasting, and satellite transmission media were used in delivering distance education and today, the Internet, microcomputers, and the World Wide Web are influencing and shaping the current generation of distance education (Kerka 1996, Jones & Fox 2009, Bullen, Morgan and Qayyum 2011, Finch & Jacobs 2012). Nevertheless, in developing contexts, including South Africa, where ICTs have not yet penetrated all areas especially the rural areas, a combination of technology and some contact sessions is a practice underpinned by an understanding of the dynamics, diverse contexts and background of students in the programme. This picture is discussed later.

Considering that most universities are moving towards online learning to meet this global demand for distance education and higher education in general (Bjørke 2006; Shea & Didjerano 2010, Lopez-Perez, Perez-Lopez & Rodriguez-Ariza 2011; Finch & Jacobs 2012), the trend shows blending of modes of delivery Lopez-Perez, Perez-Lopez & Rodriguez-Ariza (2011). According to Bjørke (2006) two main factors have led to an explosion of interest in distance learning: '*the need for continual skills upgrading and retraining; and the technological advances that have made it possible to teach one and more subjects at a distance*' (UNESCO 2003, p. 3). Implicit in this form of learning is the whole idea of student centredness, flexibility, student independence, 'dual-mode' delivery of education (Bjørke 2006), student support, and the evolving blurring of boundaries between 'contact' and 'distance' learning. For instance, as reaching out to students at a distance proves to be a challenge for institutions offering distance education, these institutions adopt methods of ensuring that there is some form of contact between the lecturers and the students. This is evident in recent blended learning approaches and e-learning. This trend shows that these techniques are not unique to distance education institutions (with the infusion of some occasional contact sessions), as some contactinstitutions have moved in the direction of using distance learning methods mainly for support to students. It is evident that traditional (contact) institutions are now implementing e-learning as student support systems in their programmes. In such cases, distance education units established within these contactuniversities with students enrolled in distance education programmes, support initiatives in higher education employing e-learning and blended approaches as support mechanisms to improve success rates of learners. E-learning has accelerated over the decade linking this trend to increased demand for distance education for a variety of purposes, including increased access into higher education.

2.7 Strategies/models used to enhance student retention in distance education programmes

2.7.1 E-learning and blended learning definitions

There a variety of definitions for e-learning. The definitions used in this study are drawn from Allen and Seaman (2011) and the OER Africa website and Alonzo, López, Manrique and Viñes (2005). Allen and Seaman (2011) provided broad, practical definitions of learning methods of delivery applied in higher education namely, online, face-to-face, and blended to distinguish the three methods from each other in their manifestations and applicability. This enables drawing lines between them, when necessary, as boundaries are blurring between distance education and face-to-face learning, seen in the shift in teaching methods that incorporates some aspects of online technologies (Internet, mobile technologies, web) in traditional face-to-face learning. (Allen and Seaman 2011; Finch & Jacobs 2012) defined online courses as those in which at least 80% of the content is delivered online. For face-to-face courses the course content is zero to 29% delivery online and blended learning is defined as having between 30 and 80% of the course content delivered online. Table 2.1 that follows illustrates the course classification' based on the definitions above and will inform this study focusing on online and blended methods of programme delivery:

Table 2.1 Course classifications

Proportion of content delivered online	Type of course	Typical description
0%	Traditional	Course where no online technology used – content is delivered in writing or orally
1 - 29%	Web Facilitated	Course that uses web-based technology to facilitate what is essentially a face-to-face course. May use a course management system (CMS) or web pages to post the syllabus and assignments.
30 - 79%	Blended/Hybrid	Course that blends online and face-to-face delivery. Substantial proportion of the content is delivered online, typically uses online discussions, and typically has a reduced number of face-to-face meetings.
80+%	Online	A course where most of all the content is delivered online. Typically have no face-to-face

		meetings.

(Source: Allen & Seaman 2011)

Alonzo et al. (2005) provided a definition of e-learning which they adapted from the European Council (2001) as follows:'*E-learning is the use of new multimedia technologies and the internet to improve the quality of learning by facilitating access to resources and services, as well as remote exchange and collaboration*'. *These authors added to this definition by stating that e-learning can also be seen as 'the use of network technologies to create, foster, deliver and facilitate learning anytime and wherever*'.

According to the Open Education Resources (OER) Africa project on Building African education capacity through openness, e-learning is a tool greatly used in distance education to enhance teaching and learning through mediated technology. Here it is viewed as a *'form of educational technology'* which facilitates the teaching and learning process through the use of information and communication technology (ICT). These include:

- Desktop and laptop computers
- Learning management systems
- Software
- Interactive whiteboards
- Digital cameras
- Mobile and wireless tools, including mobile phones
- Electronic communication tools, including email, discussion boards, chat facilities and video conferencing
- Virtual learning environments

(adapted from OER Africa)

Blended learning on the other hand is commonly defined as the combination of face-to-face instruction with technology-mediated instruction (Graham 2005; Finch & Jacobs 2012). Stacey and Gerbie (2008) defined blended learning as an emergent landscape in educational technology where physical and virtual environments are blended to support learning in university courses. They further described blended learning comprising mixed approaches including, convergence of face-to-face settings, which are characterised by synchronous and human interaction, and information and communication technologies (ICT) based settings, which are asynchronous; and text based and where humans operate independently. These definitions of blended learning point to blurring of boundaries between 'standalone' distance learning using ICTs to mediate instruction and 'dual modes' in the form of blended learning. Of importance to note is that both

approaches aim at similar goals of (i) increasing learning effectiveness; (ii) increasing convenience and access; and, (iii) increasing cost effectiveness (Graham 2009). Blended learning and e-learning are increasingly acknowledged as approaches that have potential in enhancing the experience of learners in distance learning environments.

2.7.2 E-learning and blended learning models

The literature on e-learning points to booming enrolment in online higher education as a result of the introduction of Information and Communication Technologies (ICTs) as strategies to deal with the strong demand for higher education – a demand they simply cannot meet with traditional campuses and programmes (Sawahel 2013). Allen and Seaman (2011) reported that the number of online students taking at least one online course in the USA higher education rose from 1.6 million in 2002 to 6.1 million in 2010, translating into compound annual growth rate of 18.3 percent for this period and a corresponding annual growth rate of just over two percent – from 16.6 million in 2002 to 19.6 million in 2010 – for the overall higher education student body during this same period.

In South Africa and other parts of the world, strategies such as e-learning and open education resources, video conferencing and audio conferencing are an emerging trend used in bridging the transactional distance. These are more interactive allowing more dialogue between the student and the lecturers. The models commonly used in teaching especially with programme design or instruction involves a collaborative process involving '*…the course team of content experts, instructional designers and media specialists, providing structured materials which are then used as the basis for dialogue between learners and specialist teachers (often called tutors)*' (Moore 1991, p.28). In large distance education institutions this team effort is absolutely imperative as high skills and techniques are needed to ensure that the necessary student support and dialogue is achieved.

2.7.3 Practice models for blended and e-learning: Teaching and learning

Today, a wide variety of resources are used in distance learning due to technological advancement. Some common resources used to support teaching and learning in these environments are web 2.0, multimedia, simulations, mobile learning, smart boards and Internet teaching resources. Dalsgaard (2006) mentioned the use of 'discussion forums, chat, file sharing, video conferencing, e-portfolios, 'weblogs and wikis'. In the virtual learning environments, e-learning applications include Blackboards, WebCT and Moodle; these are all being used increasingly in teaching and learning in distance education. Technologies are advancing and

introducing innovative ways of teaching and learning especially for distance education contexts. The removal of barriers to reaching out to the global cohort of students is central to distance education and if information and communication technology proves to be the key to addressing this issue, more focused research on its effectiveness and monitoring progress in this area is recommended.

The research currently done in this area points to progress, success cases of using electronic resources and communication technology, best practice, and the advantages of using online learning. However, there might be limitations as a result of reliance on online learning when it comes to the dynamics within these learning environments, especially those that concern the students' family background, socio-economic status, personal circumstances, institutional administrative challenges resulting in students finding difficulties in accessing the course material online, lack of institutional capacity to handle large enrolments, and some challenges beyond the control of institutions. Bjørke (2006) emphasised the benefits of using a 'dual-mode' as compared to using 'single-modes' such as using mainly distance learning methods and relying on e-learning in these programmes. Bjørke (2006) has alluded to the shortcomings of studying degree-giving courses alone and argued that learning to a large extent is a social construct, requiring contact sessions and student engagement. If these areas are not well managed they might impact on student success. The sharing of information on best practice around the use of ICTs and training is recommended as a way forward to address shortcomings in the practice. Online learning includes the following:

- Electronic mail (delivery of course materials, sending in assignments, getting/giving feedback, using a course listserv);
- Bulletin boards;
- Downloading of course materials or tutorials;
- Interactive tutorials on the Web;
- Real-time, interactive conferencing using Multiuser Object Oriented systems or Internet Relay Chat;
- Intranets;
- Informatics, the use of online databases, library catalogues, and gopher and websites to acquire information and pursue research to study. (Kerka 1996)

Proponents of online learning have testified to its effectiveness (Rajasingham 2011) and share similar views with Kerka (1996) on the following advantages of online learning:

- Time and space flexibility;
- Potential to reach a global audience;
- No concern about compatibility of computer equipment and operating systems;
- Quick development time, compared to videos and CD-ROMs;
- Easy adapting of content, as well as archival capabilities; and
- Usually lower development and operating costs. (Kerka 1996)

These advantages are linked to enhancing interactivity between instructors and learners (O'Neil 2006) and further interaction with and about the content. O'Neil suggested that in the past, while this interpersonal interaction has occurred almost solely between instructor and student in distance education, there are opportunities now for lecturer-student and student-student interactions even when '*geographically separated*'. Again, with regard to flexibility in time and space, students have a choice to learn whenever and wherever they are in a strong support structure built on feedback and peer support and tutor support systems. This attests to the practice in the institutions in this study whereby programme structure allows flexibility and the approach is student-centred giving more emphasis to student support. The approaches elicit openness in programme delivery grounded in contextual settings of students to meet their specific needs and enhance learning experiences. For instance, Dalsgaard (2006) and Rajasingham (2011) discussed the use of social software as a tool that is user-friendly and can be easily adjusted to meet specific students' needs and implemented in the course of teaching and learning. This supports Moore's (1991) theory that the transactional distance is the level of engagement between the lecturer and the student and the outcomes of the engagement between the lecturer and learner. The social software Dalsgaard (2006) mentioned include the weblog, wikis, RSS feeds and social bookmarking whilst Rajasingham (2011) considered Technologies such as "mobile computing and technology, wireless laptop, iPads, mobile phones such as Blackberry, iPhones hand-held personal digital assistants (PDAs), and mobile telephony" (Rajasingham 2011 p. 2).

A weblog is 'a log file' which has dated entries that are listed in a chronological order on a web page (Dalsgaard 2006). This file is managed and maintained by an individual who continuously enters new entries. The readers of a weblog can comment on the entries. Though this starts as an individual representation on the web, it can end up as a community or networks when it

relates to other weblogs. RSS feeds enable subscription to weblogs and the notification of any new comments or entries to weblogs. Therefore, there is a community formed on the web with the traffic of information which is shared by the users. This definitely allows for some form of engagement. This is described by Dalsgaard (2006), stating that weblogs subscribers actively participate in networks on the web through subscriptions, writing comments and interacting with other subscribers on the web thereby creating communities. This is an example of e-learning tools used in distance education programmes whereby lecturers are using the web to engage learners on topics or content and in this way they can actually monitor the engagement and students who are active on the web.

Dalsgaard (2006), whilst acknowledging that Learning Management Systems (LMS) are useful in distance learning, noted that they tend to be administratively used by faculties in the development and managing of online programmes. He suggested an approach based on using e-learning beyond learning management systems. He observed that the approach used of LMS in distance education limits student learning experiences and therefore calls for a more centralised and integrated LMS as a pedagogical tool for learning in these environments. He argued that the common approaches involve the use of LMS for administrative purposes such as admissions, registration, fee payment, purchasing and, in most cases, very little attention is paid to pedagogic fundamentals of the classroom or learning. He argued that the use of a centralised and integrated approach of LMS within a framework of 'social constructivist pedagogy' should not form a focal point in an institution offering e-learning but should move beyond that. The point being made here is that LMS should support students in a way that would encourage student self-governance/directness and the development of social networks and collaboration in the learning process. In this light, Dalsgaard (2006) proposed the use of social software tools such as discussion forums, chat, file sharing, video conferencing, shared whiteboards, e-portfolios, weblogs and wikis to enhance the learning experience of learners in an integrated or separated manner, depending on the learning activities the tools should support. He therefore located the learning process within the constructivist framework in which learning is a social and active process where students are engaged in solving problems on their own. Central to this concept is the employment of a LMS that fosters a culture of learning that is self-directed, collaborative/network oriented, problem-based, self-problem solving skills within an open-ended learning environment (Dalsgaard 2006).

This approach might be useful in distance learning programmes in which the learners are adults and are working. They are therefore not able to attend full-time classes where they are required to be physically present. Instead they can learn anywhere within a conducive environment that fosters collaboration and interaction between the students and the lecturers on the one hand and amongst the students on the other hand.

Another benefit of using online learning is that it gives voices to those students who are reluctant to speak in face-to-face situations. This is empowering in that it has the potential of acknowledging students' individual voices and judging student contributions on their own merit, with the support of student self-directed learning which encourages and builds self-discipline, student motivation, and responsibility. This method of instruction encourages student centeredness as compared to instructor mediated learning.

2.7.4 Good practice models for e-learning and blended learning

As already discussed, the use of electronic communication is used as a means of bridging the gap between the student and the lecturer in distance education and in some cases this is proving to be an effective strategy to address the longstanding challenge of the physical absence of the learners. Conway (2003) advanced the idea of the need for students in online learning to continue receiving 'equivalent experiences' of learning to traditional learning experiences. The argument made by Conway (2003) is that the strategy of blending online learning could promote quality in online learning as it could address the challenges associated with the 'physical removal' of the student in the learning and teaching environment. Though distance education has the potential of promoting a student-centred learning (constructivism) as opposed to traditional teaching, which is lecturer-centred (positivism) there are apprehensions and scepticism about distance education.

According to Conway (2003), common concerns of many lecturers in traditional educational classrooms who are sceptical about online education include: whether 'deep understanding' of perceived difficult content material can be achieved outside of same-time same-place interaction; the appropriateness and effectiveness of distance education for certain types of subjects and students; reaching out of needed equipment, training and technical support to students and faculty; and, the implications of the limitations on availability of library and learning materials on distance education courses (American Federation of Teachers 2000, p. 5).

These concerns echo Moore's (1991) viewpoint in particular with regard to the transactional distance and its impact on the relationship between the lecturers and the learners on the one hand, and the teaching and learning environment on the other hand. In addition, there are instances of limited bandwith as well as learners needing good computer skills to operate the computer and technical skills to deal with technical difficulties as the learning is computer reliant. Accessing the Internet is another challenge for learners in the rural areas (Kerka 1996). Student passivity is also cited by Kerka (1996) as something that needs to be cautioned against in this form of learning.

Conway (2003) recommended the application of the seven principles of good practice in online education as one way of addressing this challenge. These principles of good practice identified by Chickering and Gamson (1991) were drawn from a review of 50 years of research on the way lecturers teach and students learn. According to Chickering and Gamson (1991), these would be useful if incorporated into distance learning. The seven principles are those that:

- Encourage student-faculty contact;
- Encourage co-operation among students;
- Encourage active learning;
- Give prompt feedback;
- Emphasise time on task;
- Communicate high expectations;
- Respect diverse talents and ways of learning.
  (Chickering & Gamson 1991)

Embedded in the principle on encouraging student-faculty contact, Conway (2003) explained the practice of using electronic technologies, as already indicated earlier, that are synchronous or asynchronous communications technology. Li, Finley, Pitts & Guo (2011) concur that this technology has a potential of reaching out to distance education students and facilitating equivalent learning experiences and not equal experiences (Conway 2003, Li, Finley, Pitts & Guo 2011). Synchronous communication technologies include:

- Chat room;
- Live online seminars;
- Telephone conferencing; and
- Instant messaging.

Asynchronous communication technologies include:

- E-mail;
- Bulletin boards;
- Listservs;
- Voice mail;
- Fax; and
- Postal services.

The advantages of using asynchronous communication are summarised by Berge 2000, Li, Finley, Pitts & Guo 2011) as being flexible in that students can access course material at any time; fostering a culture of self-reflection allowing students to relate ideas to their own working environments; lending itself to a situated learning context that is cost effective. On the other hand, the advantages of synchronous communication include the potential to motivate, increase focus and energy of the group; develop a sense of 'social presence' and group cohesion, providing quick feedback on ideas, consensus and decision making; and, encourage people to be up-to-date on assigned work and provide structure and discipline.

Whilst online learning or e-learning is a method used in distance learning and face-to-face learning contexts, blended learning is manifested in mostly traditional face-to-face learning environments to support or supplement learning, and in some instances their distance education programmes. This shift in higher education as already noted above infuses these technologies and techniques mentioned above. It is evident in the literature that blended learning, which is the 'new kid on the block' is an approach that is overwhelmingly acknowledged as a method that has potential to enhance ‘student flexibility’ in the learning environment; it has the potential to support teaching and learning, thereby improving communication and collaboration methods between lecturers and learners and amongst learners, supporting increased access to an increased amount of knowledge in the discipline and supporting professional development of learners and their future career paths (Ginns and Ellis 2006). These aspects should be considered as important for students when examined against the contribution that blended learning methods are making towards increasing student experiences, promoting access to knowledge and information and increasing student access to education through bridging the gap between lecturers and students in distance education and reaching out to large numbers of learners compared to traditional settings.

Whilst the models presented above reflect a seamless account of the role of online and blended learning, with the introduction and incorporation of ICTs for pedagogy or curriculum design to support students in distance education, the scenario in southern Africa and South Africa, in particular, is complex suggesting caution in the implementation of online or blended approaches which need to be tailor-made to the needs of our students within their specific contexts. In the developing world, distance learning faces numerous challenges, some of which are familiar to developed contexts, such as the need to increase access to higher education of marginalized groupings of people. At the same time, with student support in distance education having been of poor quality, it has been difficult to achieve the desired outcomes of distance education (Avery 1997). Avery (1997) observed that distance education has been loosely conceptualised especially in the developing contexts with limited research done on students' perceptions of support or the effectiveness of support services. This thought supports the perspectives that the situation in the developing world is different in many ways and the approaches in terms of online and blended learning or student support are shaped by the unique circumstances within which distance learning practices are manifested. Approaches to online learning or blended learning are a manifestation of diverse contexts that are shaped by various factors, including institutional dynamics, resources, socio-economic status, political, and human resources development strategies. In the developing world, contact sessions play an important role to support distance education and are regarded as key in the provision of student support services; they ensure that communication is maintained with students and that engagement between the lecturers and students is enhanced to address the challenge of transactional distance. To this end, a variety of strategies, in diverse settings are used to complement ICTs to address problem areas and to enhance the student's learning experience. These include contact sessions or blended learning, student support and identifying at risk students, bridging courses, increasing and widening access, student assessment and feedback, funding mechanisms, etc. These strategies are explored further below, starting with acknowledging the limitations of 'relying' on ICTs in developing contexts.

The point made here, is that, though there are similarities in terms of the practices and experiences or lessons learnt between both worlds, of using ICTs in learning environments, approaches differ reflecting the uniqueness of factors shaping the learning environments, the different contexts that influence students learning experiences and the backgrounds of students between the developed and developing contexts. This suggests that in the developing context, reliance on ICTs might not be sufficient in tackling complex issues surrounding student

retention and throughput, particularly with regard to bridging the transactional distance between lecturers and students in distance education. For the purpose of this study, consideration of various techniques and strategic models and their effectiveness is important, bearing in mind existing gaps in the system and distance education, in particular, and in certain cases 'holistic' integrated approaches are preferred to meet institutional objectives embedded in institutional mission and vision statements. Whilst in other cases complementary approaches using contact and ICTs are implemented to promote student engagement, reflection and critical thinking for the realisation of a complete learning environment (Avery 1997).

Firstly, southern Africa is faced with the challenge of lack of resources and poverty, and because of budget constraints, some distance education programmes might be of poor quality. Taking into consideration the scale of challenges facing distance education in the context of developing countries and South Africa in particular, application of best practice models will be influenced by the social and economic status, infrastructure, funding and resources available to a large extent. In this regard, the key principles of an effective distance education system for South Africa should consider strategies that would take into account the broad socio-economic and political landscape and transformative issues. It is worth considering that funding is a critical area. In South Africa, funds were allocated for distance education as a measure for increasing access. In this light, the Ministry of Higher Education funding mechanism stipulated, '*the funding grid prices for FTE for distance students will be set at 50% of those FTE contact students. The funding grid prices for FTE distance masters and doctoral students will be the same as those for contact students*' (CHE 2004, p. 129). Making funding available has been carefully considered for the purposes of increasing access even at institutional level with institutional efforts at making funds available to support students in their distance education programmes.

At the same time, infrastructural limitations are experienced in developing countries. For instance a common challenge is that the majority of people do not have access to the Internet let alone own a personal computer. These challenges make it difficult for learners to learn online as online learning requires access to a computer. Therefore there is still a reliance on print media, contact sessions, blended learning to support distance education.

The case study that was conducted by the Natal College of Education (Avery 1997) on a group of students to investigate the perceptions of students on contact time in distance education pointed to the value of contact sessions in distance education. The researchers argued that

contact sessions are key or essential components of distance education to support learners to ensure that they succeed and to develop an efficient distance education system in South Africa. However, they point out that the quality of support systems even with regard to contact sessions has to be further researched as there is very little research on the perceptions of students regarding contact time in distance education. Their study revealed that the majority of students perceived contact sessions as valuable and offered opportunities for closing the distance between them and the lecturers. Overall, contact sessions open up avenues for engagement through group activities and provide a forum for resolving actual problems, critical thinking and reflecting. This pattern is similar to the institutions in this study whereby contact sessions are used as a means of providing support to students. In other words, it is a common perspective based on practical realities and experiences that implementing complementary methods and additional techniques would add value in view of the complexities and dilemma still facing distance education in developing countries.

In addition to synchronous and asynchronous ICTs, there is the need to blend in contact modes of learning and other interventions to arrive at a holistic approach to improving student retention and throughput. This is to ensure that gaps in the system are addressed. This line of thought is based on reflections on realities of the African student's experiences and sense of agency, and availability of resources. For instance, though the models firmly based on ICTs as key in strengthening retention strategies are effective in developed contexts, there are shortcomings to their application within developing contexts: ICTs have not always penetrated rural areas and the majority of people do not have access to the Internet. In addition technology knowledge has remained a challenge considering that the majority of students based in the rural areas and those from the older generation who are upgrading their qualifications, are lacking in IT skills. Therefore institutions in developing contexts are faced with a dual challenge of improving distance education but still relying on print media and correspondence and to a large extent blending of contact sessions.

The action plan for the United Kingdom Open University (UKOU) is the Learner Support Framework which focuses on the student journey to identify at risk factors. At risk students are those from low socio-economic status or from poor family backgrounds. This perspective is shared by Hughes (2007) who maintained that 'improving retention and identifying 'at risk' learners are high profile issues in higher education and a proposed solution is providing good learner support'. Her model is based on 'blending e-learning with classroom teaching and using

the consequent reduction in face-to-face contact time to increase tutor support and target 'at risk' learners'. This model relates to the South African distance learning context in that identification of at risk students in our distance education programmes is key to addressing the challenge of student retention because most of the learners in distance education are adult learners who work full time and study part-time, therefore have very little time for their studies. The majority of these students are mature students who in some cases need IT training and who lack computer and/or Internet usage skills. Therefore tracking these students and identifying at risk students is necessary in our context in order to provide these students with the support they need to enrich their learning experiences. Using online tracking to target 'at risk' students and providing this group of students with good student support is an effective strategy to improve student retention (Hughes 2007). The tutor facilitates the learning process whereby he/she identifies 'at risk' students and provides support. Students who are considered to be 'at risk' are those who are for whatever reason not logging in or communicating online during online sessions or who are failing to complete formative assessment tasks. Student withdrawal at a module level manifests itself either through active withdrawal, or passive withdrawal, by not submitting assignments or by failing assignments (Hughes 2007). There are two main approaches to supporting at risk students: one approach is to identify at risk students before the start of a programme and the second approach is to offer support during the course (Hughes 2007). However, the first approach of identifying at risk students might be complicated before the start of a course. The second approach is more effective because lecturers can easily track students who fail to submit assignments or who fail assignments and follow them while the course runs with the aim of supporting those in need (Hughes 2007)

The second approach suggested by Hughes (2007) is effective in that by employing online technology, tutors can easily identify students who are not engaging or not submitting assignments early in the course and apply intervention mechanisms. For instance, Virtual Learning Environments provides details of who has logged in, and when, and can be used as an early warning mechanism for non-engagement (Hughes 2007). Tracking of students alerts the tutor to non-engagement early without having to scan through possibility unreliable registers for missing names, before the requirement for any submission of formative assessment (Hughes 2007). In the South African context, this approach would be useful as a method for ensuring that the support that students in distance learning need is provided, especially for at risk students. This would be mostly useful for adult students who cannot study full-time and/or have not enough time to study and submit assignments due to work pressure, personal

circumstances, and to those who lack motivation to study or lack guidance or support from tutors. Therefore, tutors who opt for the second approach can offer more support to needy students with a blend of contact sessions and online learning to. However, there is the need to carefully design online programmes so that there is a good balance between contact sessions and the online engagement. Poorly designed blended learning might lead to poor learning experiences and adverse outcomes in the learning process. At the same time there is the need for training tutors and lecturers in online teaching so that they can offer effective and efficient support services to students.

In terms of widening access tackling the issue of high dropout rates of students in their first year of learning is important. This approach is related to student support or academic support and identifying at risk students. To address this challenge institutions are implementing some support systems and interventions in the first year of the student journey. To this effect academic development programmes or foundation programmes have been introduced, targeting first-year students and some aspects of these models such as tutoring are applied within distance education environments. Some of these programmes are aimed at supporting black and female students as well as mature students. Some aspects of these methods might be useful in distance education contexts or to a greater extent addressing barriers at the schooling level that might impact on the quality of its output and the education system in general. Understandings of students' 'under-preparedness' should be located in reflective practices (Boughey 2009). There are structural factors that should be taken into account as well, for instance, how teaching and assessment and feedback impact on student success.

The online model used by Queensland University of Technology, Australia is based on peer mentoring of first-year students to support this cohort of students in their transition to university. The rationale is that peer mentorship of first-year students by experienced students could be used as a support system because they speak the same language and this approach allows for the mentees to connect with their mentors. These peer mentorship programmes can be equated with foundation programmes in terms of functionality and purpose. The findings of a study the university conducted on the Bachelor of Education (Early Childhood) revealed that this approach is effective and facilitates student success. The student profile of the institution comprises approximately two-thirds of mature-aged students compared to one-third of commencing student population in 2004. These students experience similar challenges experienced by other students such as 'balancing competing deadlines; cultivating independence

in learning; and developing skills in assignment writing, critical thinking, problem-solving and information technology skills' (Heirdsfield, Walker, Walsh & Wilss 2008, p. 6) hence they need support and mentors to mediate in this learning process. This provides an equal learning experience for mature-aged students who in most cases study through distance mode with that of the students in contact environments.

They cited other support mechanisms including tutorials 'that allow first year students (mentees) to review course content ... [and get] training in academic skills such as assignment writing, referencing, strategies for exams' (ibid., p. 4). The mentor provides guidance and is able to engage the students in ongoing dialogue, monitor their progress, and adapt information to students' needs. At the same time programme leaders or programme coordinators are brought on board to oversee the mentorship programme and provide leadership. The benefits of this model are that it has the potential to enhance a sense of belonging, retention, a transition to university and foster skills development (Heirdsfield et al. 2008). The model is similar to the ones used in South African distance education programmes in that tutors are employed for tutorials to support learners with their assignments, exams and assessment. These tutors work closely with students and engage students on an ongoing basis using text messaging (Li, Finley, Pitts & Guo 2011, Rajasingham 2011) and online communication. Whilst Queensland University of Technology's model is based on using experienced students as mentors for their distance education students, in South African distance education, tutors are subject specialists who are mostly at an honours degree level or one level higher than the academic level of the students. However, mentoring occurs through students-student and student-tutors methods of engagement in online discussions and blogging. It is also important to note that evaluation of the tutors is necessary to ensure the quality of tutoring services offered are maintained, for quality cannot be compromised. The institutions in this study make use of tutor evaluations in their distance education programmes. For instance, questionnaires are sent to students to determine the students' satisfaction levels with the tutoring services offered by individual tutors. Tutors who are found to be performing below accepted standards are required to improve or are withdrawn from the programme. These techniques, firmly grounded in quality, have demonstrated success in addressing the first-year students' experiences of tutoring services and in that regard have impacted positively on access and have improved student success as is evident in Queensland University of Technology's model and even in the South African models explored in Chapter 4.

The concept of quality of tutoring services is linked with quality issues in programme delivery and particularly, as a concern in distance education. Quality is a pivotal concept central to the whole notion of improving student retention and throughput. As a central concept it is underpinned by the philosophy of the institution, student support mechanisms, systems, processes and procedures, administrative support, teaching and learning activities, etc to ensure quality of delivery. Quality underpins all the facets of delivery in a programme. Some of the concerns around the delivery of programmes in distance learning have been expressed by Department of Education and the Higher Education Quality Council (HEQC). To this end, the criteria and minimum requirements in terms of quality of assessment should be adhered to. The Higher Education Quality Committee (HEQC) criteria for assessment in distance education stipulate that, 'the programme has effective assessment practices which include internal (or external) assessment, as well as internal and external moderation' (HEQC 2004, p.19). This is accompanied by minimum standards that include 'procedures to receive, record, process, and turn around assignments within a time frame that allows students to benefit from feedback prior to the submission of further assessment tasks'. Providing timely feedback is important to inform teaching and learning and to improve the curriculum (ibid.). The South African Institute of Distance Education (SAIDE), in consultation with the distance education community, undertook research to inform the development of quality criteria for distance education in South Africa (2003). In that light, the thirteen criteria used by distance education providers for self-evaluation are: Policy and Planning; Learners; Programme Development; Course Design; Course Materials; Assessment; Learner Support; Human Resources Strategy; Management and Administration; Collaborative Relationships; Quality Assurance; Information Dissemination; and Results. These criteria might need further research in determining the quality of delivery in distance education but for the purpose of this study I will focus on the Assessment criterion as it relates to support systems and structures as well as student feedback explored in this study.

Quality issues in assessment should be taken into consideration in online learning and blended learning. For instance, assessing online assignments might be problematic, might raise credibility issues and therefore requires ongoing, systematic approaches. In addition to effective tutoring strategies, effective assessment techniques are useful to assess the effectiveness of the teaching and learning in online programmes at all levels of the programme delivery. Effective assessment techniques contribute towards enhancing student learning in that students' performances can be monitored, academic programmes improved, and teaching and learning enhanced (Gaytan and McEwen2007). Appropriate measures and techniques in online learning should consider the

effective '*management of student assignments, providing feedback to students and assessing students learning*' (ibid., p. 118).

The authors maintain that for effective assessment to happen the purpose of assessment, the criteria being measured, and the intended outcomes should be established prior to the assessment. Gayton and McEwen (2007) stressed that effective models for assessment should consider a) 'development of realistic scenarios for learning, b) alignment of learning objectives with realistic scenarios, c) use of software as soon as possible, d) availability of online mentors, and e) delivery of on-site, instructor-based training responsive to individual student learning differences (p. 119). This approach suggests tailor-made techniques aligned to the above areas. At the same time, it is worth noting the findings of a study conducted at two southern state universities in the USA in 2004. Lecturers and students enrolled in online courses were surveyed on the effectiveness of instructional and assessment strategies for online learning. The findings of the study revealed that more than 75% of the faculty respondents agreed that 'a wide variety of clearly explained assignments are regularly required, 93% supported a need for evaluation of student work to determine if learning outcomes are being met, and 83% indicated continual, immediate, and detailed feedback as essential to assess student perceptions of the course, with 76% indicating the need for e-mails to be evaluated for maximisation of students' understandings of assignments (Gayton & McEwen 2007, p.125).

2.8 Lessons learnt

It is evident from the models presented above that recent developments in technology have advanced the delivery of goods and services in distance education to enable distance education to reach out to its learners. The ICT models mentioned above provide a support base for teaching strategies employed in distance education and have made advancements in terms of ensuring that distance learning is accessible to large numbers of students on a global scale. Research has been conducted on a large scale on improving distance education delivery to address the challenges of high dropout rates or poor success rates with the exception of the following remaining challenges facing large open distance education institutions today:

- Reading materials not reaching students in time;
- Support systems for students;
- Slow feedback loops caused by no teacher-student contact; and
- Some students lack resources to access the Internet e.g. they do not have computers.

Nevertheless, as suggested by Moore (2003) the transactional distance between the student and the lecturer could be narrowed by the use of teaching strategies such as the ones based on the model espoused by Conway (2003) and contact sessions, especially in the South African context, to accommodate the needs of students. The extent to which the strategies are useful in addressing the challenges above, especially in the context of distance education, need further interrogation as it is evident that low student success and retention rates persist in some distance education programmes, irrespective of the implementation of these strategies. Another pressing issue that remains unanswered, concerns the quality in distance learning (Antony & Gnanam 2004) touched on in the previous section.

Key principles considered are based on blended learning using online learning and some form of contact sessions between students and the lecturers to bridge the transactional distance in our distance education programmes and to effectively support learners: Most of the learners in distance education programmes in South Africa, especially those pursuing teacher education, are adult learners that are working on a full-time basis and some have personal responsibilities such as families and might face challenges if studying in environments without effective and efficient student support systems in place. Considering that most of them are enrolled in distance education programmes and are unable to attend contact or contactinstitutions, blended learning models would be beneficial to provide the best learning experiences equivalent to those of contact learners. However, the literature suggests that for blended learning to be effective it must meet the following minimum requirements: development of effective faculty-student support structures and systems, flexible learner-oriented and quality driven teaching and learning methods that incorporate information and communication technology and have integrated e-learning into the system of teaching, learner support and administration (Kelly & Stevens 2009), and the use of an online system to identify and track at-risk students with the view to improving success rates. Additional techniques such as contact sessions could be used to strengthen support systems to enhance communication between the lecturer and students, and ensure learner engagement is maintained.

2.9 Conclusion

In conclusion it is evident from the literature that student retention and throughput is a well researched area and efforts are being made to address the challenges of student attrition, low success rates and poor throughput in higher education not only in the south but globally. Earlier theories show that this has been a longstanding challenge suggesting difficulties in resolving the

issues. What exacerbates the situation is the high loss in returns to education and costs to governments and individuals. In the same vein, higher education has to deal with social and economic accountability issues to governments and to the public whose interests it serves. Consequently, immense pressure is placed on higher education to respond to the need to produce competent and highly skilled graduates. However tensions and complications surface as the output of higher education does not match the costs of investing in it. The critical issues are the high failure rates, dropout (student attrition), poor student success rates from the education and training system. Distance education is of key importance in addressing these challenges due to its potential of reaching out to a global group of students from diverse backgrounds. Consensus in the literature points to the major challenge of the transactional distance in distance education and high dropout rates calling for strategies to improve student attrition, retention and success rates.

The literature points to models grounded on principles of widening access, interactive teaching and learning and student engagement, effective student support structures and systems, monitoring student success through continued monitoring enrolments and graduations rates, using ICTs to enrich learning experiences, establishing communities of engagement i.e. student-student, student-tutor, student-lecturer, effective assessment practices etc. Blended learning models and online learning are recommended in the literature as suitable approaches to accomplish the objectives discussed. For instance, the seven principles of good practice in online learning advocated by Chickering and Gamson (1991) provide a useful framework to facilitate student-faculty contact and strengthen feedback.

Considering the complexities and depth of the challenges it seems there are important lessons in the literature reviewed and the models explored above on strategies to improve student retention and success. These theories not only provide insights into the scope and breadth of the phenomenon but also provide guidelines or tools for benchmarking. At the same time, the literature informs the study and does answer the research questions when viewed against evidenced based research that informed these models and strategies and even in relation to the trends and practices in blended learning and online learning environments. In addition, recommendations based on the models as useful lessons can be drawn from them in tackling the issues associated with student retention and throughput. Educators, educational faculties, institutional managers, and researchers can draw on these strategies to benchmark their practices and strategies for student success, and for institutional effectiveness and planning.

Chapter 3

Research Methodology

3.1 Introduction

The purpose of this chapter is to describe the research methods and approach used in this study. A qualitative research approach was employed through multiple-case study research design to provide an in-depth understanding of the strategies used to address student retention and throughput in South African distance education, firstly, as a lens to determine whether the targets set in the National Plan for Higher Education (NPHE) are being met, and secondly, to explore models used by institutions offering distance education programmes aimed at improving student retention and throughput. Considering the depth and the complexities of student retention, and to answer the research questions posed, multiple data collection methods were used in in-depth interviews, analysis of student data, and document analysis. This approach is informed by a constructivist approach that acknowledges the richness of individual perspectives or expertise viewpoints and experiences, values, and the subjective nature of understandings of phenomenon (Wahyuni 2012) associated with social constructs of meaning and discourse. The intention is to obtain rich, emic (insider) perspectives from experienced participants who have expert knowledge about the phenomenon being studied through open-ended interviews and probing. However, for the purposes of adhering to ethical procedures, confidentiality rules are applied, therefore the institutions, the specifics of the programmes, and the identities of participants in this study will not be disclosed

For the purpose of this study, a relevant definition of qualitative approaches is one that I drew from Myers (1997, p. 2), '*Qualitative research involves the use of qualitative data, such as interviews, documents, narratives, and participant observation data, to understand and explain social phenomena*'. This approach supports the long standing/traditional notion that '*Qualitative research methods are designed to help researchers understand people and the social and cultural contexts within which they live ... the goal of understanding a phenomenon from the point of view of the participants and its particular social and institutional context is largely lost when textual data are quantified*' (Myers 1997, p. 3), hence the need for more focused research using qualitative approach to understand the causal complexities within the phenomenon. The rationale for choosing a qualitative approach based on a multiple-case study design is underscored by the firm view held by Polit and Hungler (1999) that the benefit of using

qualitative methods is its ability to explore and elucidate a phenomenon that is little understood. In addition, the advantages are using it as a tool to '*reconceptualise research as the process of reducing our uncertainty about important phenomenon or questions*' (Sofaer 1999, p.1103) and '*developing theories or conceptual frameworks*' (ibid., p.1105) Little is understood about the phenomenon of student attrition, retention and throughput (Tinto, 2006). In the South African education and training system and in particular distance higher education, this challenge is critical calling for effective turnaround strategies to improve student success and throughput rates. This is evident in past persistent trends in poor matric performances especially in the gateway subjects such as Mathematics, Physical Science, Accounting, and very disturbing low numeracy and literacy rates, the high dropout rates of learners before completing matric and in their first year tertiary education impacting on the quality of learning, learners entering higher education and learner preparedness for higher education, on the one hand, and the ramifications for higher education in terms of capacity to ensure that these learners are retained in the system and for producing highly skilled and competent graduates for the market economy and human resources development, on the other hand. The chapter also considers the sampling methods, data collection techniques and processes, including data mining and analysis, the interviews, validity and reliability, and delimitations of the study.

3.2 Research Design

In any study conducted it is important to clearly state the research methods used in order to guide other researchers on how the study was conducted, taking into consideration the research problem and the research questions linked to the research design. In considering the research approach the researcher should design a research strategy which is the research design. Rowley (2002, p. 18) explained that '*a research design is the logic that links the data to be collected and the conclusions to be drawn to the initial questions of a study; it ensures coherence*'. In other words, the research design is the 'action plan' starting with the research questions to the conclusion of the study (Rowley 2002). The research design is informed by the research questions. With regard to this study the main research question is "To what extent have universities succeeded in increasing their throughput and graduation trends to meet the targets set in the NPHE?" Therefore, the aim of the study is to investigate the strategies used by universities in their distance education programmes with a view to improve student retention and throughput. To answer this research question, I found a multiple-case study design an appropriate approach considering: a) its ability to answer the research questions in this study, b) its potential to explore a phenomenon in its

natural setting through exploratory analysis of multiple cases to get rich insights and in-depth understanding of the same phenomenon and allow for cross-case comparisons and replication of findings to provide a holistic picture compared to a single-case method. In other words, multiple sources of data will be necessary in order to sufficiently cover the research ground, the contextual issues, and to gather sufficient evidence to reach conclusions.

Yin (1994, p. 13) defined a case study as '*an empirical inquiry that investigates a contemporary phenomenon within its real life context, especially when the boundaries between phenomenon and context are not clearly evident*'. Baxter and Jack (2008) further explained, drawing on Yin (2003), that a case study adds value to research when considering the following: a) the focus of the study is to answer 'how' and 'why' questions; b) manipulation of the behaviour of those involved in study is difficult; c) to cover contextual issues relevant to the study; and d) the boundaries are not clear between the phenomenon and context. For instance, in studying student retention in distance education, the strategies used by faculties and/or experiences of those involved in student retention processes, cannot be considered without the context, the distance education environment, the students' experience, and the approaches used to retain students. Drawing on Yin (1994, 2003), Benbasat Goldstein and Mead (1987), Baxter and Jack's (2008) embedded case design was considered to explore the student retention phenomenon within the South African open and distance learning contexts.

Höst (2009, p. 134), acknowledging Robson (2002), described case study as a 'research strategy ... use of multiple sources of evidence' and the gathering of information from few entities. Case studies may be classified as exploratory, descriptive, explanatory, or improving, and their application depends on the purpose of the study and the nature of inquiry. Considering that case studies are by Yin's (1994, 2003) definition conducted in real world settings, they present real insights into the phenomenon and they are flexible, allowing for the use of multiple data sources, including a mixed methods approach combining qualitative and quantitative data analysis (Höst, 2009). However, most cases studies tend to be based on qualitative data in order to provide richer and deeper description (ibid.). Case studies can qualify as holistic case studies or embedded case studies (Yin 2003). A holistic case study considers the case as a whole and an embedded case study considers multiple units of study within a case. This study considered two institutions as separate cases reflecting their respective contexts within an embedded case study comparative approach with a purposeful selection of units of analysis having the variations in properties to be investigated (Höst, 2009). For instance, through the interviews, each

institution's specific mission regarding programme delivery, history of the programme, student data, or strategies were units of analysis in their own contexts, whilst at another level exploratory narratives were formulated and findings replicated.

The benefits of using case studies are their ability to focus intensely on a single phenomenon within its real-life context (Yin, 1999). Therefore, a case study affords the opportunity of exploring a phenomenon such as, in this case, student retention using a variety of data sources (Baxter & Jack 2008) and examining cases on their own merits (individual cases) within their specific environment, without having to replicate the phenomenon in another environment such as a laboratory in order to understand it (Rowley 2002). In addition to the advantage of tolerating '*the condition whereby the boundary between a phenomenon and its context is not clear*' (Yin 1999), the case study has the flexibility of coping with this uncertainty (ibid.). Again, case studies are flexible and can be adapted to different contexts to accommodate changes that contexts are subjected to over time with developments etcetera, therefore allowing for additional case studies. Another added advantage of case studies according to Yin (1999), is the flexibility of mixing qualitative and quantitative. Given the picture presented above it suffices to say that the multiple case studies approach was appropriate in terms of answering the research questions. Drawing on the research questions and the established rationale, it became clear that the study required a holistic approach involving within case and across case analysis to understand student retention as a nested or embedded phenomenon.

Benbasat, Goldstein and Mead (1987, p. 372) suggested that '…*case methodology is clearly useful when a natural setting or focus on contemporary events is needed*'. In addition, the authors held that '…*a rich natural setting can be fertile ground for generating theories*'. The advantages are seen in how the application of the cross-case comparisons would contribute to hypothesis generation, advance best practice, and promote shared practices across institutions. Beyond that it would '… *contribute to the development of theories that can accommodate various forms of complex causality*' (George & Bennett 2005, p. 374) and most probably be recommended for furthering research as is strongly suggested in the literature on student retention in higher education globally. A detailed discussion is provided later in the chapter.

This study explored two cases in their respective contexts to understand institution specific practices regarding the strategies used to improve student retention in distance education institutions to identify strengths, opportunities and weaknesses, with the view to replicate best practice and also draw from the theories. The study was informed by the literature on student retention and having being nested within a theoretical framework, it provided a rich exploratory narrative of student retention and how institutions are dealing with the challenges associated with it in the South African distance education context. Baxter and Jack (2008), quoting Yin (2003), held that a multiple-case study '… *enables the researcher to explore differences within and between cases*', and added that '…*the goal is to replicate findings across cases*' (Yin, 1999). Because comparisons will be drawn it is imperative that the cases are chosen carefully so that the researcher can predict similar results across cases or predict contrasting results based on a theory. In order for generalisations to be made, the case study design should be informed by a theory; it should either contribute to the theory or refute it (Yin 1999; Rowley 2008). The more the case studies show replication, the more robust are the outcomes. Therefore, this method supports an approach utilising more cases or a combination of multiple data collection techniques and analysis, for instance if two or more case studies support a theory, replication can be claimed. A case scenario is the institutions participating in this study whose models support the theories on student support to improve student retention.

3.3 Sampling methods

Onwuegbuzie and Leech (2007) defined sampling designs as '*representing the framework within which the sampling occurs, comprising the number and types of sampling schemes and the sample size*'. Sampling methods are aligned to the research questions and in determining sampling methods and techniques, the goal of the study are taken into account. Qualitative approaches are used to illuminate and help us understand a complex phenomenon, such as student retention in higher education, and should be used to answer 'why' and 'how' questions as opposed to quantitative approaches that test pre-determined hypothesis and produce generalisable results (Marshall 1996, p. 522). Quantitative approaches are appropriate to answer the 'mechanistic 'what' questions' (ibid.).

Considering the purpose of this study as explained, purposive sampling was employed. Therefore, a careful purposive selection of subject expertise in distance education for the in-depth interviews was considered for the study. Participants were chosen based on their

extensive knowledge and experience of the phenomenon studied with a view to purposefully inform the study (Creswell 2007); they were also chosen to share their experiences and best practice as a means of addressing the research questions and theory development. Since the assumption is that distance education has the potential to improve student retention and throughput in higher education, people with expertise, knowledge and extensive experience of teaching in distance education were part of the criteria I used in the selection of participants. In other words, the sample was very small and the decision for the restriction of participants was intended for gathering insightful and enriched experiences of the participants. The rationale is that best representation nested in situational contexts and exploratory narratives would yield greatest depth of understanding of the phenomenon, given the participants' expertise and knowledge about the programmes and programme delivery in distance learning. My assumption was that these participants would be willing and prepared to engage, and to share their experiences, partly because they would be interested in the phenomenon being investigated, considering the critical challenges of student retention and throughput in distance learning, and also they would add value to the research by enriching learner experiences in the programmes.

The sample size of the study was small but purposeful and strategic, determined by the scope of the study and comprising only the units managing the distance education programmes analysed. Only two institutions offering distance education programmes were included in the study as they were offering similar discipline specific programmes at an honours degree level. The participants I interviewed who have expert knowledge and experience in the field recommended participants within their Departments that I could interview based on these participants' extensive experience and first-hand knowledge about student data (enrolments, graduation, success and attrition rates) shaped by, either, their managerial roles and direct engagement with student data or research undertakings in the area of student retention and throughput. This helped in terms of getting detailed information and evidence based information. As noted by Onwuegbuzie and Leech (2007), sample sizes should not be too large in qualitative research to enable the gathering of 'thick, rich data' and at the same time not be too small to make it 'difficult to achieve data saturation'. According to Polkinghorne (2005), purposive sampling is advantageous in small size samples because it has the potential to draw from the experiences of participants to probe and explore a phenomenon to understand the deep-seated dynamics or dimensions. Polkinghorne (2005 p. 140) further explained that since the goal of qualitative research is '*enriching the understanding of an experience, it needs to select fertile exemplars of the experience for study*'. This implies that the purposive selection of data sources should involve a purposive selection of people and

documents from which the researcher can substantially learn about the experience to enrich the understanding of the study.

Firstly, ethical clearance protocols were adhered to and benchmarking criteria whereby only institutions offering similar distance education programmes were included in the sample. Following the ethical clearance rules and procedures and approval for the research to be conducted, consent to participate in the research was sought from participants. Applications for ethical clearance accompanied by letters seeking the permission of the interviewees to participate in the research were sent to the participating institutions. The ethical procedures are detailed in the section dealing with ethical consideration in this chapter.

3.4 Data collection

According to Polkinghorne (2005), data collection in qualitative research serves the specific purpose of 'describing and clarifying experience as it is lived'. In this study data collection involved the methods of collecting and analysing 'language data' from lived experiences of the participants in the interviews. This process is not restricted to interviews as it involves multiple data collection methods explained below. The gathering of different sources of information through in-depth interviews and document analysis allowed for data saturation that enabled triangulation. This process involved the collection of and analysis of primary and secondary data. The data sources were from the institutions in the study and data collection techniques are outlined below. Firstly, the initial phase required ethical consent for collecting data to be sought from the participating institutions.

3.4.1 Data collection techniques

a) Interviews

In-depth interviews were conducted which focused on the strategies used by the Departments of Education Management such as e-learning, blended learning, the use of ICTs et cetera, and how effective these strategies are in promoting student retention and increased throughput. An interview schedule was designed and used for the interviews (see Annexure C). The questions were open-ended allowing participants space to explore and/or describe their experiences regarding the strategies, what in their view were the challenges, what mechanisms or interventions were effective to address these challenges, what they would recommend as best

models or practices that can be replicated or shared within and across the higher education landscape. The interview questions were focused on the areas of interest (topic) nested in the research questions leading to the facilitation of conversations and a flexible conducive environment for flexible inquiry and exploration of the phenomenon. Participants were encouraged to freely narrate their stories based on their experiences and rich deep insights were shared through structured and semi-structured interviews. A good rapport was maintained to allow the interviewees to share their experiences and to reflect on events and practices. Since the participants were experts and seasoned academics in the field of distance education, they narrated their stories bringing out detailed descriptions and rich, insightful perspectives around the models used in their distance programmes with minimum interruption allowing for a seamless flow of information and engagement on the phenomenon. Open-ended questions allowed for 'freedom of expression' of the participants who could give their own accounts of their lived experiences in an unrestricted manner. This is echoed by Polkinghorne (2005, p. 143) in supporting Glaser (1978) that the researcher can facilitate the process of further openness for interviewees to share details of their experiences through maintaining rapport and the interviewees' confidence. In explaining further, Polikinghorne (2005, p. 143) emphasised that 'Access to one's experiences is not straightforward; it often requires assistance and probing... It is the interviewer's task to help in unpacking an experience and gaining access to deeper levels and more nuanced descriptions of the experience'. Four people with expert knowledge and experience of the phenomenon studied were interviewed to purposively inform the study. A digital voice recorder was used to capture the actual wording of the interviewees for transcription of the data. The use of a digital recorder is technique that supports the method of using different techniques in collecting data and it was very helpful for this study in terms of allowing me to capture all the details and not miss any important information provided by the interviewees. The actual details of the transcription of the data are explained in the next section dealing with data analysis. At the same time, note taking was conducted during the interviews – so various techniques were used to capture the details and measures were taken to ensure all the information was safeguarded to secure sensitive institutional data.

b) Secondary data

Student data on enrolments and graduation trends were analysed. Data sets were requested for the period between 2001 and 2012, however due to the policy shifts in the higher education environment accommodating higher education restructuring processes, data sets for this period

were not available. Instead I obtained data for the period from 2003 to 2011 from one institution, and for the period March 2012 – April 2012 on module evaluation and student feedback on the effectiveness of the contact sessions from the other institution. Nevertheless data was obtained reflecting current trends and patterns regarding student enrolments and graduation rates that were adequate to address the research question.

Institutions of higher education maintain student records and data on their institutional portals (databases). This data is updated in line with data management systems to ensure data integrity. In South African higher education information on student enrolments (headcounts) and throughput (graduation) rates is updated on an annual basis and submitted to the Department of Higher Education and Training (DHET) and transferred onto the Higher Education Management Information System (HEMIS). The HEMIS is a national database of public higher education institutional data located within the Department of Higher Education. It keeps data on students, course registrations, qualifications, CESM, staff profiles. Student data includes enrolments and graduation rates that are monitored and submissions made to the DHET for planning, monitoring and for purposes of subsidising the institutions. This is a national imperative to monitor throughput rates in line with the funding formula and planning of the higher education system. Hence my data analysis involved the analysis of data on enrolments and throughput to establish whether the throughput rates in the distance education programmes being investigated match the targets set for distance education and whether the strategies used are effective.

c) Institutional documentation

The participants also provided me with additional information in the form of documents. This was very useful for maximising evidence in keeping with the principles of triangulation. The range of information collected in different formats together with the interviewees' descriptions and details, enhanced rigour and credibility. In the light of understanding student retention and the measures taken by institutions to address challenges associated with it, different sources of information were required to support evidence and to reach conclusions and also to answer the interview questions. The institutional documents included the following:

- The Admin Booklet – Guidelines on modules in the BEd (Honours) in Education Management and Policy (for exams in October 2012)

- The Tutorial Booklet 1 to guide learners on examinations in April 2013. Documents on student examinations, success rates and feedback. Soft/ hard copies on presentations on student attrition and graduation rates.
- Student feedback forms for evaluating the effectiveness of the white board contact sessions
- Student feedback form for evaluating the effectiveness of contact sessions
- Students' Technology Profile Questionnaire
- Module evaluation forms
- CD ROM

d) Presentations

During the interviews with the participants presentation on student demographics (Age, gender, race) and student profile (IT usage, skills, enrolment trends, success rates, failure rates, and graduation) were made available. These presentations highlighted research findings on student data presented at national and international fora on distance education. These presentations were not necessarily made by the participants interviewed, but included presentations made by other academics and students in the field. These presentations were useful during the data analysis and assisted in the process of data saturation and were used to check consistency and to verify the information provided by the participants during the interviews – triangulation. The detailed analysis is provided in Chapter 4.

3.5 Data analysis

Since qualitative studies are based on exploration of phenomenon or '*gaining insights into particular educational, social, and familial processes and practices that exist within a specific location and context*' (Onwuegbuzie & Leech 2007, p. 106), a qualitative data analysis technique combined with some secondary data analysis techniques was used. The data analysis process involved: a) within case analysis; b) across case analysis, encompassing rich descriptions, conversations and observations, and field notes. (This is detailed in Chapter 4.) Using within case analysis provided rich descriptions of models used and achievements gained, whilst across case analysis allowed for a rich comparative analysis of the emerging themes across the cases to derive conclusions, contribute to theory development and replication of findings. The emerging themes that were consistent across the cases include: development of ODL models tailor-made to meet specific academic needs of students, student support mechanisms, flexibility and holistic approaches to

open distance learning, quality and student success, student academic support – targeting and identifying at risk students, use of ICTs in teaching and learning, effective administrative systems to support teaching and learning, and quality assurance, benchmarking and best practice. These themes and concepts are explored later in the chapter. Directed content analysis considered narration of the two stories of the institutions through the eyes of the participants, that is, their views and perspectives on student retention and throughput based on their experiences and knowledge of the phenomenon.

3.6 Data analysis techniques

The interviews were transcribed, the language was coded, patterns and themes emerging were identified to inform the study in keeping with qualitative data gathering and analysis techniques. With regard to data analysis, Seidel (1998, p. 348) explained that the data analysis process is *'best understand as a symphony based on three elegant but simple notes – noticing, collecting and thinking'*. Seidel added that it is '*clearly not linear, the process is described as iterative and (a repeating cycle), recursive (returning to a previous point), and "holographic" (each "note" contains a whole), with swirls and eddies*' (ibid.). Types of data analysis in qualitative studies are content analysis, thematic analysis, and discourse analysis.

A broad definition of content analysis was drawn from Hsieh and Shannon (2005, p. 1278) who proposed '*a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns*'. Zhang and Wildemuth (2009, p. 1) observed that content analysis approaches transcend boundaries uncovering real '*meanings, themes and patterns that may be manifest or latent in a particular text...allowing researchers to understand social reality in a subjective but scientific manner*'. Manifest content analysis would involve the actual analysis of words by counting them whilst the latent content analysis involves texts and themes explored (Zhang & Wildemuth 2009). For the purposes of answering the research question, the approach used in this study was to analyse themes emerging from the accounts and stories of the participants actually drawn from their expressions of an idea in any form such as 'single words, a phrase, a sentence or paragraphs' (Zhang & Wildemuth 2009, p. 3) coded and categorised into major themes.

Content analysis can be perceived as 'mechanical' in that, once the data has been collected, the researcher systematically works through each transcript assigning codes which may be numbers or words, to specific characteristics within the text. It is not limited, however, in that it produces

'*descriptions or tyologies, along with expressions form subjects reflecting how they view the social world*' (Zhang & Wildemuth 2009, p. 2). The researcher might already have a list of categories (a-priori) or he/she may read through each transcript and let the categories emerge. Thematic analysis may also be called 'narrative analyses. This type of analysis is generally associated with terms such as 'life history' or a 'story'. It is about how people construct reality or multiple identities. In this method themes emerge from the data and are never imposed by the researcher, whilst, discourse analysis concerns how words are being expressed and how language is used. This method looks at the patterns of speech and uncovers the ideological assumptions of the participants. This study employs content analysis to explore the stories of the institutions and to conduct a comparative analysis of the emerging patterns and themes from the stories.

Although the study draws on multiple sources of data, each of the two cases in the study is a unit on its own, and the data for each case were analysed separately, where after common trends and themes were identified and analysed in terms of their potential to improve retention and throughput rates (Yin 1999; Rowley 2008). Data analysis involved analysing each institution's models on strategies to address student retention in their respective distance education programmes for an in-depth understanding of these models and strategies. For instance, their models on improving student retention and graduation rates highlighted some achievements and challenges and possible successful contributions in supporting initiatives targeting at risk students in distance learning, that would subsequently inform research on the development of theories on student retention and throughput across higher education

With regard to the qualitative techniques, coding and synthesising terms, language constructs and the development of themes in the data analysis process are useful. This process, which involves developing broad categories of themes, identifying matching themes of the transcripts of the interviews, and comparing information for report compilation, is an important part of data analysis. Usually this is achieved through coding to identify patterns that run across and these codes are later used to develop the themes that inform the theory that will be used in explaining the main findings. For this particular study, a digital voice recorder was utilised during the interviews to ensure that the language, words and expressions of the interviewee were accurately captured through observations of their opinions, views and perspectives of the social world based on their expertise. The exact words, statements and expressions of their experiences were used to construct the broader themes. For instance, sometimes their expressions reflected how they felt strongly about certain challenges, and implications thereof, or reflected aspects of their

models that either contributed or needed strengthening to improve student retention and throughput.

I observed that in such cases the emphasis would be made through expressions of contentment in strategies e.g. 'high quality...that is our mission', 'our throughput rates...we are doing well ', 'we are proud of our model...we have a unique model...I have not seen any like this the world'. I observed the emphasis placed on these themes that were consistent across cases through repetitive statements and expressions. Again in terms of contextualising student retention strategies their expressions revealed how they felt strongly about implementing models based on developing (South Africa) contexts, to address students' specific academic needs, consequently enriching the student's learning experience, which I noted through repetitive phrases and statements. In this regard, it was important to capture the voices and underlying meanings of the interviewees to retain the authenticity of their experiences. The transcribing of the scripts from the recordings of the interviews informed this data analysis process which ensured the rigidity and richness of the information captured.

Given that the intention of this study was to investigate the impact of the strategies used in distance education programmes to improve student retention, the experiences, personal perspectives and accounts of those involved with managing these strategies were considered, in order to have a better understanding of the challenges and the effectiveness of the strategic models and techniques they use in addressing these challenges. At the same time, international best practice models were reviewed to see if there is alignment of practice with regards to improving student retention and throughput, and the contexts within which these are located. Some international best practice models relate to blended learning methods, student support and identifying at risk students, using ICTs as a means to bridge the gap between students and lecturers, mentorship programmes etc.

The development of communities of mentors and mentees is gradually being introduced in some South African distance education programmes through blogging which has fostered different levels of engagement on a world-wide web of peers to peers, whereby learners navigate the web and engage on aspects of their studies; and students to lecturers communication of matters such as administrative issues or in some cases feedback. Case study analysis took the form of two processes. One was the within case analysis that involved the analysis of qualitative and quantitative data within each case (Yin 1989). The other is the across-case analysis that involved

analysing data across the institutions to identify common themes or contrasting themes emerging from the two cases that can be replicated. This would assist in terms of getting insider perspectives on strategies of the institutions to facilitate best practice and identify critical areas and to compare these with the other institutions then later do a comparative analysis for replication, hypothesis confirmation and recommendations for further research.

3.6.1. Within case analysis

The stories within each institution will be told in depth to explore the models employed by each institution in terms of improving student retention and graduation rates. Although a combination of inductive and deductive approaches were used to determine the dimensions and themes that emerged from the study (Berg 2007), the study used mainly inductive approaches to probe and to get perspectives of those participating to explore the phenomenon of student retention and throughput and to contribute to theory development. This approach allows for purposeful selection of samples and people for interviews to get their stories in order to highlight the themes, patterns and the inferences drawn from them, in the study (Zhang & Wildermuth 2009).

Nonetheless, it is worth noting that some aspects of a deductive approach were used in the form of student data to analyse the trend with the view to understanding student enrolment and graduation rates. At the same time, I allowed for an understanding of the actions and practices of those involved in the processes and systems, and the consistent themes emerging in the stories at the institutional level. Contextual issues also were considered within case analysis. For instance, data on student experiences and their profiles in the distance learning programmes at each institution, the criteria used in admitting these students, student support mechanisms, etc. were analysed. This technique is useful in understanding detailed descriptions and exploring each institution's strategies and models for improving student retention. An understanding of these dynamics at an institutional level is necessary for this study prior to doing a cross-case analysis. As will be indicated in Chapter 4 each institution has its own story based on its context and may follow strategies perceived to be relevant to their own context and these must be understood prior to any comparison between institutions. It may be that one institution may be able to demonstrate success in one area of intervention that may not be similar to another case. Similarly, it is possible that there may be similar trends emerging that may result in similar successes in both cases. This would require a comparative analysis.

3.6.2 Across case analysis

After completion of a within case analysis that involved the narratives of the stories of each institutions, an across case analysis was conducted. This enabled the comparative analysis of the cases using an embedded multiple case studies design. After each individual case was analysed a cross case analysis was conducted drawing on the research findings from each individual case to match themes and patterns across the cases. The benefits of a cross case analysis for this study were that the cross pattern matching and explanations of common themes emerging at individual units and across cases allows for the identification of recurring themes and the relationships developing among across case themes.

Furthermore, the data analysis approach and process were based on determining the common threads in the experiences of the interviewees of the strategies used in the programmes they are managing in distance education. These identified commonalities of experiences were matched against the student data to further identify linkages or challenges and for triangulation purposes. Triangulation of data was important in terms of establishing the validity of the findings of the study. Thereafter, another thread of common themes informed me in terms of how these challenges were addressed or what further recommendations are proposed in addressing the challenges. The research question and the interview schedule (questionnaire) informed, guided and shaped the process followed in selecting data and identifying themes for the development of topics that were clustered together that formed the major topics and broad areas in formulating a preliminary organising system (Oosthuizen, 2009). This enabled me to maintain the focus of the study and to structure the analysis of the data to maximise data coherence and relevance. For instance, segments of the data that would be out of their context was easily identified and coded separately and decontextualised to retain their meaning.

3.7 Trustworthiness and credibility

In qualitative content analysis trustworthiness is crucial and the use of the following concepts: *credibility*, *dependability*, *transferability*, and *confirmability* have been used '*to describe various aspects of trustworthiness*' (Graneheim & Lundman 2004, p. 109). The aim is to ensure that the research findings are as trustworthy as possible (Graneheim & Lundman 2004). These criteria are considered in qualitative content analysis because they have the ability to increase trustworthiness of the research findings and adequately address the research questions or focus.

Credibility concerns how adequately the phenomenon being studied has been represented (Zhang & Wildermuth 2009) through demonstrating confidence in the data collection and analysis processes to address the research focus (Graneheim & Lundman 2004). In this regard, credibility takes into account the activities that the researcher engages in to improve credibility of the research results such as 'prolonged engagement in the field, persistent observation, triangulation, negative case analysis, checking interpretations against raw data, peer debriefing, and member checking' (Zhang & Wildermuth 2009 p. 6). For the purposes of this study triangulation was conducted to increase the credibility of the research findings. According to Oosthuizen (2009) triangulation refers to the use of multiple methods of data collection to ensure that the observations conducted are reliable in the data analysis process. This approach to data collection and analysis is echoed by Suter (2012, p. 350) who stated that '*qualitative analysis of text is often supplemented with other sources of information to satisfy the principle of triangulation and increase trust in the validity of the study's conclusion*'. Multiple sources of data were analysed in keeping with the principle of triangulation and to increase credibility of research findings. Institutional data sourced from institutions' information portals, comprising enrolment, attrition and graduation rates, presentations, tutorial letters, student feedback questionnaires, CD ROMS, and presentations,, as well as the views, concerns and experiences of the participants in using certain teaching strategies, such as online clips to communicate with students in a distance education programme, video conferencing or other e-learning materials were juxtaposed and validated. Broad themes emanating from the interviews were analysed for identification of consistency of statements or perspectives of the interviewees on their experiences of the strategies they use to improve student retention.

At the same time as this approach of data collection and analysis helped me in terms of increasing the credibility of my research findings, I was looking at what the broad themes emanating from the interviews were saying compared with the student information from institutional portals and noting where there was concord or disjuncture of meanings. For instance, the information on enrolment and graduation trends in the documents validated the participants' verbatim accounts of the enrolment, attrition and graduation patterns during the interviews. There was consistency in both versions of primary and secondary data analysis with documents, presentations and participants' accounts of the same unit of analysis and the emergent themes, suggesting credibility of results. Other examples include the student feedback forms and student questionnaires whereby students were encouraged to evaluate the tutors or part-time lecturers, and which served as evidence supporting participants' indications of student

support mechanisms. The student feedback forms served as an instrument to feedback into the system the quality of delivery received by students in order to improve on areas found to be weak. The questionnaire was designed to determine how students experience the effectiveness of the support systems and support material presented to them such as an interactive white board contact session. Evidence from the documents validated claims made in the accounts of the interviewees which increased credibility of the research findings. In terms of depth in relation to validity of my research findings, I was looking for consistency of statements or perspectives of the interviewees on their experiences of the strategies they use to improve student retention, by systematically selecting units of analysis to identify themes and categories that covered important data. In addition, credibility of research findings was verified by similarities in views and criteria that were repeated by more than one interviewee when interviewed at different times at both institutions.

In qualitative research trustworthiness is found in replication across multiple cases and transferred contexts. This could refer to the matching of an experience of a phenomenon. The phenomenon of student retention and the strategies used in distance education were matched to determine any correlation of variables in the interviewees' descriptions or matching patterns emerging.

With regards to 'dependability', Suter (2012) explained that in qualitative research paradigms the concept refers to '*evidence to support the claim that similar findings would be obtained if the study were repeated*' (p. 363). In explaining the meaning of this Suter (2012) stated that if repeated, the study would yield new outcomes due to the shifts in the environment and the 'ever-changing social world'; however, dependability can be enhanced by 'common qualitative strategies' in the data analysis whereby the results yield 'the same coding or observation' repeatedly in the data analysis process using the same participants. In this study, dependability is achieved through the application of coding consistently. In the data analysis process, the interview transcripts were read repetitively and texts or phrases signalling similar meanings were accorded codes, thereafter concepts were identified; these were highlighted in all separate interview transcripts creating larger categories. The coding was conducted in a fashion that enabled me to identify the emerging themes from within and across cases. The process followed an 'opening, orientation and consolidation' (Zhang & Wildermuth 2009, p. 10) in stages. Transferability refers to 'the extent to which the findings can be transferred to other settings or groups' (Polit & Hungler 1999, p. 717). In this study, considering that student retention and throughput is a critical area in

South African higher education, particularly in distance education, transferability is considered following a carefully considered approach that would not violate ethical rules of confidentiality. Transferability of criteria or emerging themes that are common from the research findings could be transferred to other similar contexts. For example, the description of the contexts, student information, participants, together with a 'rich vigorous presentation of the findings together with appropriate quotations' (Graneheim & Lundman 2004) could be transferred to other similar contexts.

Confirmability is another aspect that relates to the credibility of the findings of the study which according to Suter (2012) refers to as *'objectivity'* or *'neutrality'*. In other words, Suter (2012) suggests that the research should be researcher unbiased. One way of achieving this is ensuring that the researcher is on the lookout for any contradictory utterances and mentions these in the research findings. More specifically, this means deliberately mentioning '*contradictory evidence predicted by alternatives'* (Suter 2012). Another method of attaining confirmability is through *'consistency with research findings that reach similar conclusions'* (ibid.).

3.8 Delimitations of the study

The delimitations of this study are determined by the scope/focus, its objectives, and sampling methods used. Simon (2011) defined delimitations as '*those characteristics that limit the scope and define the boundaries*' of a study. In clarifying the meanings of delimitations and limitations Creswell (2003) stated that 'delimitations address how the study will be narrowed in scope, whereas limitations identify potential weaknesses of a study'.

3.8.1 Scope of the study

Since this study sought to explore the phenomenon of student retention and throughput its focus was on the strategies used in a singular programme offered at two traditionally contact teaching institutions to address the gap in the *Report on the National Review of Academic and Professional Educational Programmes in Education* (CHE 2010), with a view to improve the throughput and success rates of students in distance learning. Therefore it was confined to data collection and analysis of students within these programmes only at the institutions offering these distance education programmes. Although there are other institutions offering similar programmes, they were not included in the study due to cost and time considerations. Interviews with experts in the field of distance education at the selected institutions were conducted as

stated earlier. The selection of the institutions was influenced by the research question and hence the scope of the study was limited to those institutions and its students in the distance education programmes only. However, some of the trends found may also be applicable to other institutions offering a similar programme.

3.9 Ethical considerations

In this study, ethics procedures were followed to ensure that the research met the ethical requirements of each institution participating. It is mandatory that researchers observe ethical rules, for instance gaining the participants' consent to participate in the research and respecting their right to withdraw from participating. These ethical principles were observed from the conception of the research. I obtained ethical clearance to conduct the research from the institutions participating in the study. The application for ethical clearance and letters of consent were tabled at the Ethical Committee meetings of the institutions for consideration and approval based on whether the application met the ethical rules of the institution and also on how valuable this research would be for the participating institution(s) and higher education in South Africa.

Apart from seeking ethical approval from the Ethics Committee of the two universities, letters of consent to participate in the study were sent to the selected participants (see Annexure B). These letters accompanied the applications for ethical clearance submitted to the Ethics Committee of both universities. Participants were informed about the purpose of the study and why their participation would add value to the study's findings. They were assured of their confidentiality by explaining that during the process of the interviews and data analysis their identities would be kept anonymous. This was explained again during the interviews to ensure that they were comfortable. It was also explained that their participation was voluntarily and should they wish to withdraw, they would be at liberty to do so during any phase of the interviews and thereafter. Furthermore, participants were informed prior to the interview that any information they provided would be kept confidential and would not be disclosed until the finalisation and dissemination of the research to the higher education community. All the transcripts and the voice recorder were locked up in a safe locker or cabinet too which only the researcher had access and the final versions were kept by the supervisor.

3.10 Conclusion

This chapter outlines the research design and the methodology of this study. It describes the whole research process exploring the research design and methodology in line with the purpose of the study, its rationale/significance, the sample size and the sampling spelling out the rationale for purposive sampling, trustworthiness and credibility, the issues around ethical considerations, and delimitations of the study. It covers all aspects of the research methods, data collection and analysis processes, and the techniques used in data collection and analysis. It explains why the choice of a purposive sampling was made and how it would answer the research question and meet the objectives of the study.

In terms of data collection and analysis, the tools or instruments used to collect the primary data through in-depth interviews have been described. This use of open-ended questions in the interviews has been explained with a view to probing further to gain insights of the participants' experiences of the strategies used in distance education. The unfolding of the whole interview process was discussed. Ethical issues were described and addressed. The findings of the study as they emerged from the data will be discussed in the next chapter.

Chapter 4

Data Collection and Analysis

4. 1 Introduction

This chapter analyses the data collected for the study starting with narratives of the stories of the institutions that participated in the study to identify patterns and trends in relation to the research questions. Thereafter major themes emerging were synthesised in terms of similarities or differences across the cases. Multiple case study approaches in data presentation for analysis was considered encompassing in-depth interviews, conversations and observations, institutional data and document analysis, and field notes. Data presentation follows this sequence or layers of analysis: firstly, two narrative cases were conducted a) to get insights into the experiences of those managing distance education programmes, their perspectives regarding the challenges experienced and strategies used by these institutions in improving student retention and throughput; b) to determine the impact and effectiveness of their strategic models; and c) to determine whether the targets set in the National Plan for Higher Education (NPHE) (2001) are being met; and d) to address the research questions in the study. Within case analysis was employed to explore insider perspectives, dynamics and dimensions of the institutions regarding student success, retention and throughput; across case analysis followed to replicate findings, for a comparative analysis of the two stories. For the purpose of this study, comparative analysis of emergent themes would be useful to identify the patterns and the relationships among emergent cross-case themes. The first level of this analysis was at an institutional narrative level to explore the rationale behind the strategies used, the effectiveness of these strategies, and to determine whether the institutions are meeting the targets set in the NPHE. This level of across case analysis looked at the across case patterns and themes (pattern and theme matching) for similarities or differences, interactions and the relationships among emergent themes across institutions with a view to replicate findings and to contribute to theory development. Secondly, having reviewed literature on international best practice models (as discussed in Chapter 2); my aim was to determine whether the explored models are in accordance with international best practice. This layer of analysis was integrated into the first layer involving narrative cases of the institutions concerned. Thirdly, institutional data, documents, field notes, and observation provided evidence based approach to data analysis and triangulation.

4. 2 Within case analysis

Chapter 3 discussed data collection techniques and methods, including the concepts of 'within' case analysis and 'across' case analysis employed in this study to present the data and to analyse the strategies and models used by the participating institutions. Using within case analysis contributed to a greater depth of understanding of the models as it allowed for participants to share their stories drawing on their lived experiences and lessons regarding the strategies they use. In addition, the narratives of the participants reflected their views and perspectives on the phenomenon of student retention and throughput based on their knowledge and experiences, providing a deeper understanding of the phenomenon. This was an unstructured process of conversations with participants and moments of reflection on their practices, initiatives and contributions towards the set objectives. They took me through their journeys enabling me to see the bigger picture and gain insights into the student retention and throughput issues, providing rich institutional cases. Within case analysis also provided rich descriptions of the techniques used and achievements gained whilst across case analysis allowed for a comparative analysis of the emerging patterns and themes across the cases. This would be useful for replicating findings and/or contributing towards theory development. The emerging themes that were consistent across the cases include: development of ODL models tailor-made to meet specific academic needs of students, student support mechanisms, flexibility and holistic approaches to open distance learning, quality and student success, student academic support – targeting and identifying at risk students, use of ICTs in teaching and learning, effective administrative systems to support teaching and learning, and quality assurance – benchmarking and best practice. These themes and concepts are unpacked as the data analysis process progresses in the chapter.

The stories of the two institutions below are explored and developed using the models used by the institutions to improve student retention and throughput focusing on the strategies within South African distance education contexts. The interviews were transcribed, the language was coded, patterns and themes emerging were identified to inform the study in keeping with qualitative data gathering and analysis techniques. With regard to data analysis Seidel (1998, p. *348*) explained that the data analysis process is '*best understand as a symphony based on three elegant but simple notes – noticing, collecting and thinking*'. Seidel added that it is '*clearly not linear, the process is described as iterative and (a repeating cycle), recursive (returning to a previous point), and "holographic" (each "note" contains a whole), with swirls and eddies*' (ibid.).

4.3 Case 1: Institution A

4.3.1 Setting the scene/overview

Following the institution's Research Committee approval for me to conduct research and with permission granted, an interview was scheduled, for me with people with extensive knowledge and experience of distance education programmes offered by the institution. The interview took place on 4 February 2013 at 10.30 a.m. for two hours at the participants' offices on campus.

To set the scene for the interview, introductions were made, the purpose of the interview was explained and ethical protocols relating to confidentiality and voluntary participation of the participants in the interview were followed. This involved signing of the consent form by Participant A and thereafter we proceeded with the interview. The interview was basically unstructured. As it progressed it opened up for more dialogue and a conversation that provided detailed descriptions of how this institution's Open Distance Education model was designed and structured to meet the aims and objectives of the programme, paying attention to the Faculty's systems and processes, student support mechanisms, student retention and success strategies and techniques to enrich the student learning experience and student satisfaction through the lens of the academic calendar and the 'student walk' – starting from the time the student applies for admission, registration, examinations, and graduation processes which Participant A illustrated through a diagram on the white board. As a novice researcher I was impressed by the clear descriptions and the vivid pictures, and I took a picture of this diagram using my cellular phone. A detailed description of these processes and the institution's model is provided later.

In terms of how the interview was organised, initially the interviewee suggested that it would be very helpful if I interviewed him at the same time as another person within their unit who is a researcher with similar research interests in distance education. We later decided that individual interviews would be more appropriate based on their shared understanding that would avoid duplicate responses to the research questions. I interviewed the other person afterwards focusing on student matters such as enrolments and graduation rates since this researcher had extensively researched student retention in distance education to support the unit's objectives of '*monitoring throughput and dropout rates'*. The researcher was able to provide details on student enrolments and graduation that informed me in terms of the patterns and trends and this was helpful in gathering evidence to support the findings of my research. The interviews opened up dialogue and participants felt free to tell their stories, thereby enriching insights and information

that helped me answer the research questions. This was achieved through shared insights, perspectives and detailed descriptions of models used by the institution based on their experiences and knowledge. The story of this institution is narrated below to explore the model employed by the institution in terms of improving student retention and graduation rates.

4.3.2 Institutional initiatives and commitment towards improving student access, retention and throughput

From the onset of the interview it was emphasised by Participant A that the Faculty was committed towards contributing to the institution's strategic objectives and responsiveness to socio-economic needs and human resources development in South Africa. This set the vision of the institution in line with the Green Paper on Post School Education and Training (Department of Higher Education & Training 2012b) calling for institutions of higher education to focus their efforts on improving student retention and throughput. In meeting this national imperative Participant A shared the institution's initiatives by providing insights into the Faculty's role and operations in training more teachers and putting them through the education system using distance education. He projected the importance and value of this initiative and the achievements gained during the whole process. The value attached can be seen through the repetitive use of the words, 'impact', 'need', and 'quality delivery'. His presentation revealed that a positive impact was made in meeting the needs of the teachers through quality delivery of the distance education programme. Figures were indicated in terms of those who have passed through the system: '*for the past ten years we have enrolled more than 50 000 students. We have graduated more than 27 000 students from our distance education programmes*'. This pass rate represents approximately 55% throughput over this period when considering the 30% benchmark in the NPHE which is an indication of encouraging success rates. To support the claim made by the participant data on student enrolments, attrition rates and graduation rates for the period 2003.to 2012 in Participant B's presentation (explored later) were matched against these statistics (see Annexure A).

The institution's initiative to increase student access, improve student retention and throughput should be understood against the background and history of the programme. This initiative was internally driven in response to ministerial mandate on higher education institutions to focus on increasing throughput rates through distance education. The institution's vision is reflected in management decisions, thinking and planning processes for the realisation of this goal. The drive was to contribute towards up-skilling and upgrading existing teacher education qualifications, to

address the quality of education in South Africa in response to national strategic imperatives of access, equity and redress. The common understanding was that addressing teacher education would in turn address the quality of the entire education system – the critical challenge of poor education in the schooling sector impacts directly on learner preparedness for higher education, the quality of learners entering higher education, capacity issues in higher education, and the quality of teachers in general. Understandings of historical dimensions of the teaching profession and current challenges such as the poor quality of teaching and teacher qualifications informed these processes.

4.3.3 Programme design

Background information on the history and purpose of the programme was provided by Participant A to explain the context within which the distance education model was developed. It was important to have a clear picture of these developments and trends against the backdrop of improving student access and success in our education system and understanding the context within which the participant locates this. In addition environmental factors were taken into consideration that influenced the development of the ODL model. Figure 4.1 below is an illustration of the ODL model of this institution. It shows the three fundamental principles of increased access, quality assurance, and effective student support for ensuring student success that frame the model. Figure 4.2 shows the holistic nested approach to the model used to improve student retention and throughput by the institution underpinned by this framework. The model is discussed later in the chapter.

Figure 4.2: Institution A's ODL Model

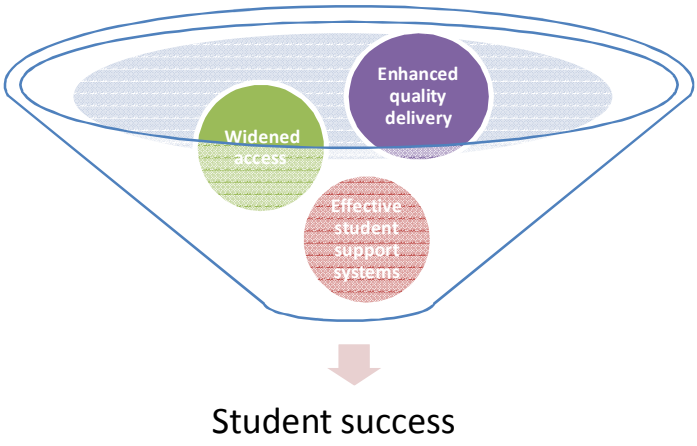
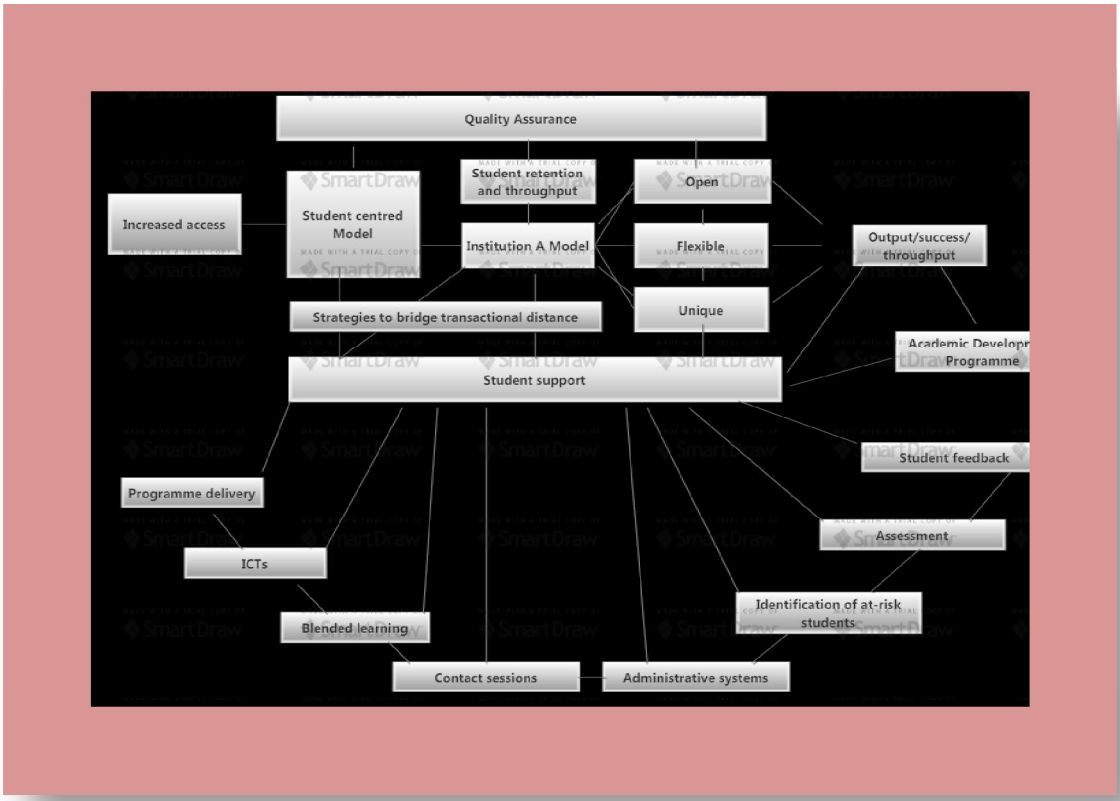


Figure 4.3: Institution A's ODL model and strategies: The holistic approach



Participant A provided a detailed historical account of how the programme was developed and the factors that shaped its development. This account mapped the external environmental (social, political and economic) and the contextual issues and variables (age, distance, rural areas, quality) that had an influence in this process. The participant took me back to 1996 when the Faculty of Education started delivering distance education programmes. Through this reflection the ongoing processes and efforts aimed at upgrading teacher qualifications for the past ten years or more by the Faculty were explained. The Faculty's main objective is in providing quality education to teachers in the system, that are products of the apartheid education system, and that was of low quality. This theme is directly linked to access and redress of past imbalances in the education system. This position was affirmed by the participant when he noted '*the purpose of our business programme is to deliver high quality programmes to specifically those who were disadvantaged by the previous education system*'. This vision is re-affirmed by the respondent's expression that the university saw the need to '*rectify the inequalities in the education system via this distance initiate of ours*'. This explanation was insightful in that it explained the rationale behind the institution's management decision in response to societal needs and human resources development. This

position echoes the Green Paper on the role of Distance Education in South African higher education. It also provides a basis to analyse the direction of the institution and to determine if targets set in the NPHE are met.

4.3.4 Improving access through quality delivery

The main tenet of distance education drive was linked to increasing access and improving student success by providing quality programmes. Embedded within this institutional approach are quality issues aligned to increased access. Again these are twin concepts that cannot be viewed in isolation of each other in the same way that quality is a measure of success. Therefore, increased access can be meaningfully achieved through ensuring quality measures in enriching the student experience and thereby influencing student persistence patterns and improved outputs. To that end, an integrated approach is suggested establishing connections of these concepts across all levels of systems and processes for improving student retention and throughput.

The participant reflected on the previous model that the institution employed in collaboration with private service providers that compromised quality of provision and nearly tarnished the reputation of the institution. This relationship was based on a contractual agreement in which the service providers provided tuition on behalf of the institution whilst the institution retained responsibility for the content of the programme. However quality issues surfaced due to the 'low quality' service of these providers. As already seen in the literature reviewed in Chapter 2, institutional reputation is important for any institution in terms of student recruitment and marketing purposes. Having said this, maintaining quality was the main challenge necessitating the review of the 'old model' and a risk analysis that informed strategic planning going forward to emphasise renewed strategies and innovation. With effective leadership, a renewed vision supporting the development of a reformed programme, the new model on distance learning was born. In that light, the conceptualisation of the model to improve student retention and throughput took into account the value attached to quality delivery and quality was central in the development and implementation of the ODL model.

Quality emerged as the underlying 'philosophy' in this account by Participant A and I observed that it was a recurring and consistent theme that emerged throughout the interview. Tied to the notion of student retention, success and throughput is quality that is seen as an enabler in effecting an effective supportive student support system. His view is that quality determines

student success and is a means to measure student success. This opened me up to the understanding that ensuring 'delivery of quality programmes' particularly to those from previously disadvantaged groups was key and strategic for student success and institutional effectiveness. This line of thinking informed strategic planning in terms of developing a comprehensive business plan for a period of '*ten years to upgrade the qualifications of the teachers already in the system*'. To that end, 'quality and student success' were the fundamental principles in the conceptualisation of the development of the model to meet this imperative objective. As a basis for putting in place effective institutional strategies aimed at meeting students' needs and bettering the student experience, these twin concepts were instrumental in all aspects and dimensions of the model that the faculty was going to follow. These principles echo the ones explored in the literature reviewed in Chapter 2.

To enhance and maintain quality people with relevant expertise were appointed to champion this cause. To illustrate this point, Participant A provided a detailed description of leadership and management decisions leading to the appointment of key people with a strategic eye, seasoned academics possessing good leadership qualities, academic standing, expertise and abilities to champion the course of 'reforming' the distance education model. This I noted in the following statement made by the respondent,

> *So what we then did was what should happen in any high quality institution and that is in any institution, and that is the Executive of the institution appointed a task team under the leadership of Professor X who was then appointed at that stage as the advisor to our Principal… So when he joined us he was an expert not only in financial management because he is a financial expert. He also had the experience of… distance education …his financial experience and his academic experience made him a very, very valuable person to lead this task team.*

This position echoes Moore's (1991) theory in the application of various approaches including engaging diverse skills that are 'systematically organised and deployed' and expertise of a number of specialists in distance education teaching. This is evident in planning and programme design phases where relevant people with expertise are engaged to ensure that the programmes developed fit in with the institution's mission, vision, the purpose of the programme, and strategic objectives considering the various aspects of programme delivery within this specific field.

This task team developed 'a full and comprehensive business plan' for ten years for three distance education programmes, taking into account the necessary resources and finances that would be required. This business plan was approved by the executive management. The next step was to appoint someone with sound knowledge and expertise to set up and head the Distance Education Unit. Participant A had the required qualifications, academic background and experience to take up this position as head of the programme His account of the events that led to the development of the Unit gave me an understanding (from his perspective) of the basis on which it started, '*with at that stage no programme and no students*'. The renewed strategies (described later) were implemented and the successes of the strategies were shared.

4.3.5 The rationale for using ODL

Through 'high quality' distance education programmes this institution aims to increase access through training more teachers and providing educational opportunities to those who were disadvantaged by that system. This position is validated by Participant A who stated that '*only the Faculty of Education decided that we would like to continue with distance education. And that was a decision based on moral grounds because the position was this, if we want to have an impact on the education system in South Africa, it will not be possible to continue delivering via contact only*'. Distance education is viewed by the institution as the viable mode of delivery if it has to put more and more teachers through the education and training system but to also ensure that they succeed. The widely held assumption is that distance education has the potential to increase student access and improve student throughput. This is so important to note in the light of this study and the shifting policy and higher education and training landscape and the renewed vision of the Ministry of Higher Education and Training, espoused in the Green Paper for Post School Education and Training (Department of Higher Education & Training 2012b), of the need for increased focus on open and distance learning, amongst others, as the vehicle for driving increased access and improved student success. As already noted, the firm commitment of the university is to contribute towards redress of past imbalances of the education system: '*3000 more teachers and those teachers have been educated and trained to teach in an education system established by the apartheid government that was of low quality and the problem lies not just on how to train new teachers*; *it is how to address those already that are in the system*'.

4.3.6 Institution A's ODL model: Conceptual framework

This Open Distance Learning (ODL) model was conceptualised around two overarching philosophical principles: a) the institution's commitment to creating an enabling and conducive learning environment for improving the quality of teacher education and student success, thereby, b) responding to societal needs and economic advancement, and human resources development. These objectives would be achieved through promoting values, and fostering a culture and practices that promote effective student support systems and mechanisms, efficient programme delivery, and flexible, open distance learning approaches. This model was described by Participant A as 'very, very unique' located within the South African distance education context. In other words, the model was tailor-made to meet academic needs of students to enrich and enhance their learning experiences, persistence and thereby success. In all undertakings, student support aligned to the notion of responsiveness, emerged as a core strategic imperative in improving student retention and throughput utilising a holistic approach discussed later.

4.3.7 Uniqueness, openness and flexibility of the model

The success of the ODL model is enabled by its 'flexibility', 'openness' and how it is structured to meet the 'specific academic needs' of the students in the programme. In being 'flexible' it affords opportunities to students for exploring and to take advantage of its student-centred approach. Because it is 'open' and not structured it does not limit students to 'time to completion' and rather encourages 'time on task' allowing them flexible options as the participant explained:

> *We create in the system a flexibility, that if something happens here they can postpone it to the next cycle without any problems because at all the contact sessions we present all the modules. So, they can just pick which modules they want to do and go for the modules they would want to sit for in the exams. If they feel 'woo, woo, this will be too much, I can't make it', it's* OK*, it doesn't matter. They can do as many contact sessions as they wish. It's open,* OK.

This further suggests that the ODL model in being 'flexible' accommodates students' diverse learning needs and styles within their own contexts. Participant A described how flexible the model is in this way: '*it has features that are extremely student friendly*'. Then he explored further the concept of 'flexibility' providing rich insights illustrating its links to improving student success:

> *Each individual student can to a great extent structure their own studies in the circumstances. The students can enrol anytime of the year. Students can decide when they want to sit for exams or not. A student can never fail for/ in a year a module. It means that it is very open. It means that each student can really structure their own studies in such a way that they are successful in the end.*

The concept of flexibility supports what the participant referred to as 'open' as students are not restricted in terms of organising their studies within the maximum time to completion. For instance, students 'can enrol anytime of the year and can decide when they want to sit for exams or not'. The concept 'flexible' is intertwined with the concepts 'open', 'unique' and it is viewed by the participant as adding value to an effective student support structure. This is evident when he says:

> *that has also massive impact on how we do student support and the type of model for distance education that we have. We have a unique* model. *I have not found any* model *of this kind of distance education. It is so open like the one at our university and that results in the positive throughput rates and the positive retention rates.*

This suggested to me a model that was structured in such a way that is 'student centred' rather than 'teacher centred', firmly grounded in student support for quality provision and student success. This supports Moore's (1991) theory on student engagement in which students are engaged in the learning process using student-centred approaches based on understandings of 'what students need to learn' facilitating student engagement and interactive learning.

The picture described above of the 'unique model' was further described by the participant as 'appropriate for our profile of students' and validated what I understood as a model underscored by strategies that are firmly entrenched within the students' diverse contexts, accommodating their specific needs and diverse talents, appropriate support systems and structures to help them experience quality education in order for them to be successful. A 'one-size-fits-all' model would not be feasible and suitable in embracing different contexts because it would not be flexible to accommodate diverse students' needs and learning styles. This information confirmed what the literature I reviewed on student retention revealed concerning approaches adopted in different countries to improve student retention specifically in relation to the developed versus the developing countries.

This reaffirming of the 'openness' and 'uniqueness' of the model within our South African distance education context was confirmed when the participant said:

> *So I think in the context, what you should always consider is the context that you work in. You can't compare a distance education programme in a developing context, like ours, with that of a developed country. It is not the same. So the question is what is appropriate for Africa? What is appropriate for our profile of students? That is the most important thing for me.*

The interview had now taken the angle of a conversation reflecting the success of the model presented in the picture above with the participant narrating his story seamlessly. Through his words and body language, he not only affirmed the success of the model in supporting the faculty's efforts in improving student success and throughput rates, but also expressed his confidence in the model and the outcomes of their strategies.

4.3.8 Distance education environment: Strategies to bridge the transactional distance

The conversation around the relevant strategies to bridge the transactional distance and the model opened me up to an understanding of the importance of considering the profile and the context of students in a distance education programme which I could relate to the literature that I had reviewed. Primarily understanding and knowing the student profile is imperative to enable the development and implementation of appropriate student support mechanisms to enhance the student experience and facilitate student success in a cost effective way. Our context cannot be compared with the developed countries because we are not on an equal standing with regard to technology. Technologically, the developed countries are more advanced and because students in these countries have easy access to technology, there is a 'blurring of distance' between the students and lectures. In our contexts, there is the need for 'periodically' infusing contact sessions into distance education programmes like this one because not all learners in this programme can access the Internet, especially those in the rural areas. For instance, when asked about his perspectives on some of the challenges impacting on the throughput and success rates of the students in the distance education programme, Participant A's detailed response gave me an insight into the challenge of distance. He mentioned the 'distance between the students and the lecturers' as being the 'biggest challenge'. This was evident in this explanation,

> *If you look at our students, in any distance education programme they will tell you that the distance between the student and his/her lecturer is one of the biggest challenges.*

He emphasised that it was not only the '*geographical space*' that is the challenge for the students, but '*it is also the emotional space that is impacting on the students*'. His use of the words 'geographical space' and 'emotional space' in describing the challenges echoes Moore's theory of 'transactional distance' which Moore (1991) referred to as impacting on the '*levels of engagement and the outcomes of engagement between the learner and the lecturer*' mediated by the strategies to close the gap. In exploring the 'geographical space' he reflected on the students' profiles stating that the '*majority by far are in the rural areas, deep in the rural areas where they are removed from the main seat of studies, Confimvaba, Thohoyandau. So they are geographically challenged*'. Participant A also used the term 'geographical challenge' to represent the group of students in the rural areas who are distanced from the lecturers. He explained that '*our students are spread geographically throughout our nation. Our largest group of students is in Mpumalanga and Limpopo. The third largest group is in the Eastern Cape, the* fourth *is in KZN and then the rest is all over*'. To support this, I refer to how both Participants A and B conceptualised this situation/dilemma within developing contexts, stressing the need for more support for these students considering student dynamics, environmental factors, and the transactional distance.

Considering that the model is so 'flexible', 'student friendly', 'interactive', 'engaging', and 'integrated' in its approach, active learning is encouraged because the model is student-centred. There is so much flexibility allowed in the programme that student learning activities encourage co-operation amongst students, enforce students' engagement and instill a sense of belonging in the students, thereby opens up space for communication routes. To address further the 'transactional distance', the Faculty has put in place a multiplicity of strategies such as blended learning, contact sessions, ICTs, and student support. These are explored immediately below.

4.3.9 Programme delivery through blended learning methods

In addition to the short contact sessions the department organises 'full vacation classes' to ensure that there is ongoing communication and engagement with students regarding academic expectations and requirements are adhered to. To ensure that barriers are removed, in '*June to July there are long contact sessions*'. This need for contact sessions (blended learning) as a means of addressing gaps and the challenge where '*access percentage to the Internet is still very low*' (25%) was also expressed by Participant B who stated that,:

> *For instance, if you are running an online programme in which some institutions are doing, it will be fine if your students have access to the* Internet. *You will be doing well. For you don't*

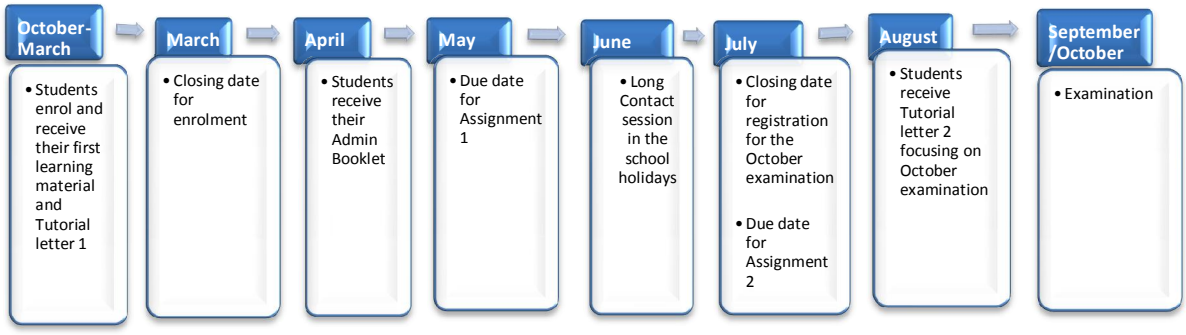
have to organise contact sessions for them. I don't know but at the same time if students don't have access to those things then you have to organise contact sessions for them. And so we have the short contact sessions and we have the long contact sessions.

The long contact sessions are supported by face-to-face teaching and learning that takes place with students meeting with lecturers at the tuition centres. These sessions are meant to encourage student-faculty contact and interaction.

4.3.10 Face-to-face teaching (contact sessions)

In exploring how contact sessions are infused in e-learning (online) Participant A elaborated on the structure and processes followed. Four periodic contact sessions are organised according to short contact and long contact sessions that run for a day (short contact sessions) and for a minimum of four days (long contact sessions) during the January and June/July school holidays.

Figure 4.3.10: ODL Academic cycle of Institution A



The academic programmes runs in six month cycles: October – March and April – September in that year with intervals of assignments and examinations in October. Students may enrol any time during the year and the cycle will be determined by the time that the student enrols.

The short contact sessions are meant to introduce students to the tutors or lecturers and to facilitate interactive sessions and the learning expected to take place as well as the administrative processes such as having the students registered for the programmes. The participant explained this process:

In the second week of April we have what we call the short contact session. It is on a Saturday and we advise all the students to 16 centres throughout South Africa. We have one in East London, Umtata, Kokstad, Durban, Nelspruit, Haysview, Tzaneen, Thohoyandou,

> *Mokano, Mokopane, Polokwane, Pretoria, Johannesburg. It is voluntary. They can come if they wish. They need to register and they come on Saturday morning.*

Having organised the classes and invited the students to these centres, the process of interactive engagement between the students and the tutors unfolds. All the necessary training and evaluation or check listing of relevant skills and expertise are followed. At the same time, the relevant equipment and resources are made available for the sessions in preparation for teaching and learning to take place. This process suggests well planned, facilitated and coordinated programme delivery that is flexible. It also emphasises quality delivery through the use of qualified people to represent the university as lecturers. The participant details this process in the following statements:

> *What are we doing? We train each module coordinator to identify people they need to be trained to represent... They come for training and they train them, they have the right qualifications. What we do is when we have contact sessions, we send well trained people empowered with power-point or slides and they go to the contact session as the lecturer of the university for that Saturday and we have a full vacation.*

The repetition of the concept 'train' or 'training' in the above statement emphasises the value of employing well-qualified, trained people for lecturing students in these contact sessions – an approach nested within a quality framework. As already indicated periodic contact sessions are organised to complement each other. Following the short contact session is the full vacation that is meant to orientate the students on what is expected during the next six months.

> *The purpose of this full vacation is to say let's have the students be welcome, let's show you what's going to happen for the next* six *months.*

At the same time, learning activities are conducted that blend in with the contact sessions. These are described below by the respondent. The mingling of these activities shows a well-structured programme balancing the expectations of the institution, programme planning and delivery, and the learning activities.

> *... this is the expectation especially for assignment 1 and how should you prepare for the* second *contact session… So this is what is happening here right at the beginning of the* six *months. So we kick-start the studies for them for that* six *months. Then somewhere in May they need to submit assignment 1,* OK, *so they submit assignment 1, then in June – July holidays they have the long contact session, over here.*

The following phrase '*this is the expectation especially for assignment 1*' suggests the expectations of the institution whilst the phrase '*how should you prepare for the* second *contact session*' suggests planning. The use of concepts such as "studies', 'assignment' and 'long contact session' denote learning activities. The way that the long contact sessions are structured and run is further detailed as follows by the respondent:

> *It runs over four and a half days. This one is a broad orientation looking forward. This one is now, 'hey, this is now lecture time, we going to take you through the stuff'. So they lecture for four and a half days to students. Then the students will have in August assignment 2 that they need to submit.* OK, second *assignment. Just before the exams they will start here they will have a tutorial letter 2. That tutorial letter reflects back on what has happened in the contact session. It looks forward to, 'hey, this is examination remember these types of things* OK. *This is the broad structure for the 6 months.*

4.3.11 Information and Communication Technology (ICTs) strategies

The Internet and CD Rom

The use of ICTs, Internet, mobile technology, and SMSs was extensively described by the participant to give me an in-depth understanding of how these tools support learning and teaching and to reach out to the students. A CD Rom is used to supplement the SMS technology, and contact sessions are organised at certain intervals (April and June) during the academic year. In explicating, he said, '*We use SMSs; we use the learning guide itself. We use face-to-face. So there is a mixed delivery that we do*'.

The use of ICTs in the programme proved to be supportive however, since the majority is in the rural areas and the rest spread out across the country, the issue of accessibility of the Internet surfaced. As a means to address this limitation the participant shared insights into the research being conducted on an ongoing basis by the faculty and a study that was recently undertaken to understand the 'technology profile' of the students, including the BEd (Honours) students to learn what type of cellphones they have, how they use them, what it costs them, etc?. to support these students. He attached this to student usage of computers or lack thereof, saying 'D*o they have a computer, what do they use the computer for? Is it at home or at school? Do they use* I*nternet cafes? To what extent do they use* I*nternet cafes?'* In addition, SMS technology proved to be useful in addressing this gap.

> *I can tell you now in real terms this then: less than 15% of our students have* Internet. *Less than 15% have access to the* Internet. *I can tell you now that there is a massive growth over the last* ten *years in the accessibility as well as availability of computers. It moved from a very low base in 2002 but the problem is the* Internet *service that is not always available.*

The statistics provided by Participant B in the following statement illustrates the challenge of Internet access:

> *For instance, if you look at access to computers. For instance, in distance education when we started here it was 1% and now it has grown to 25%... Yes, so we try to see how we can help the students, and access to the computers does not necessarily mean access to the* Internet *because the access percentage to the* Internet *is still very low. It is not as high as 25%. So these are some of the things that we need and I will continuously monitor.*

This statement by Participant B reflected the statistics provided by Participant A in that the access to the Internet is below 25%. This supports the literature on challenges regarding Internet accessibility in the developing world explored in Chapter 2. Another complication related to ICTs and Internet usage by the students was the level of technology literacy of the students and the student profile.

Participant A explained that

> *The problem was not the* Internet *service; the problem is the level of technology knowledge. They do have cellphones but they do not know how to do it and they do not want to do it because they usually use the cellphones for communication. So you work with an older generation who are technology illiterates in society. The older generation is battling with that... They are getting older – older ones that need to try to upgrade their qualifications and they are the technology illiterates in our society.*

This not only provided me with insights into Internet access challenges but also challenges related to technology knowledge of students in the programme; further research needs to be undertaken to inform interventions to address this challenge.

In this regard, one angle taken has been the introduction of a CD, which the respondent called, '*an electronic library*', as an added form of technology to the whole package in support of the ICTs mentioned above, because according to him, '*there is no way that our students can come to the library*'.

This perception was supported by Participant B when she explained the concept of the CD Rom and the hard copy of the CD Rom:

> *The Unit came with a CD Rom on the website. We stored everything there on that CD Rom for students because not all students have access to the* Internet. *So we stored on the CD Rom for them and when we gave them their learning package so that if they don't have access to the computer for instance they could go to the CD Rom and check. But not to disadvantage them we also provide them with the paper format of that CD Rom to students so that in the case that they don't have a computer* and *they don't have access to the* Internet, *they can get that information on paper.*

Again this suggests the appropriateness and usefulness of using mixed methods or techniques in dealing with the issues associated with improving communication and closing the gap between the students and the faculty or the lecturers. The synthesis of a variety of strategies, including the above mentioned ones, provided a grounded, holistic and practical support base to minimise limitations of particular methods and for the implementation of a sustainable strategic model and tools for improving student retention and throughput. The conversation further illuminated elements of blended approaches (mix of electronic material, cellphones, Internet and the contact sessions) as feasible, effective techniques relevant in the South African context. What was emphasised is the blending of online (ICTs) and contact sessions (illustrated above) to provide a cohesive integrated approach to student support specifically to meet the student's academic needs and by so doing to enhance institutional effectiveness. I observed that contact sessions were accorded great value in the light of providing additional support to students in these distance education programmes. The participant's explanation was based on his experience, knowledge and deep understanding of the student dynamics and the teaching and learning space. It is worth noting therefore the value attached to contact sessions in the light of assessing the effectiveness of this approach to improving student success and throughput.

4.3.12 SMS and mobile technology

As already explained above, this process is supplemented by the use of SMS technology to strengthen communication. As a mechanism for support, communication is manifested at different levels. According to Participant A there is face-to-face communication which is voluntary. Then there is another level which is the '*well developed learning material that is interactive in its approach*'. This implies the interactive engagement of the students with the content of the learning programme and in the process communication is facilitated. This engagement affords

them with an opportunity to develop their problem solving and critical thinking skills. This is evident in how the respondent's explanation of this engagement:

> *The second one is the well-developed learning material that is interactive in its approach. It is speaking to the student academically – it is engaging – what do you think? What do you say? That is part of the instructional design of the learning component.*

The words 'engaging', 'interactive', 'speaking' denote the engagement of students in the learning process. When unpacked,

> *The other one is that you distinguish between administrative complexity and academic conversation. Academic conversation means that I engage with you academically and unpack the complexities of the studies and the learning material.*

At another level there is communication during the administrative processes. This layer of communication is aimed at guiding students through their learning paths and talks to the academic conversations happening at another level. The whole system is integrative and well-coordinated.

> *If we talk about administrative issues the communication is predominantly via the administrative clip, via letters that the students receive, via SMSs that I have already spoken to and we have a call centre that is a dedicated centre for distance education students. The academic conversation goes via the tutorial letters and via the contact sessions. And if students want to see an academic or speak to an academic we have a system in place where the student can contact the academic staff, ask for an appointment or phone call with the academics and they follow that up. So we have a support structure to address these challenges.*

To ensure that this envisioned integrated approach is maintained, blended approaches described above using additional support techniques, such as the CD Rom (mini electronic library), ongoing correspondence via tutorial letters, and SMS communication are infused. To support this Participant A reflected on the view that, '*in the more traditional environments and especially developing contexts that we are in Africa, the fact of the matter is that distance education is still very much a clinical distance of space and time*', stressing that '*where you set the students, the learning guide and only periodically with contact sessions meet with them (students)*'. For instance, the implications here are that there might be limitations or loopholes within the system further necessitating an integrated approach with additional support mechanisms and techniques to minimise limitations of the regular used methods. He supported this view by referring to other challenges experienced such

as logistical challenges of the '*postal system, the telephone system*' such as delays in delivering post. In fact the participant referred to the use of a mix of methods to support the holistic approach when responding to the question, '*Is there an appropriate balance between, and mix of, different teaching and learning methods?*' He answered, '*Yes. We do have. We use SMSs; we use the learning guide itself. We use face-to-face. So there is a mixed delivery that we do*'. These initiatives are also aimed at guiding the students on their journey and to strengthen further the support they need to develop skills required for their academic and professional development.

4.3.13 Student support

Student support is strengthened through mediating tools such as the use of Information and Communication Technologies (ICTs) and blended learning, face-to-face learning, and diverse methods to meet students' academic needs. According to participant A in order to accomplish this, there is a need for an effective learner support system and mechanisms rooted in knowledge and understanding of the students' profiles, their academic needs and their 'technology profile'. In this regard, he shared his insights into the research on the students' profiles, their IT skills and usage. To advance this, students' mobile cellphones, Internet access and financial support (where necessary) were investigated to target and identify at risk students.

With regard to student support there are multiple layers of support systems in place. There is what the participant refers to as a holistic approach which is the overarching strategy which he refers to as the planning which takes into account the 'managerial, logistical, structural, systems'. Then there is the intermediate layer where one finds the programme delivery in terms of the content of the programme, quality assurance, programme design, resources e.g. learning material, and communication tools. The innermost phase deals with issues of communication and the use of technology, face-to-face contact sessions, and the identification of at risk students. These layers are further unpacked below.

Firstly, Participant A explained that this 'holistic' approach suggests the effectiveness of employing a variety of methods to ensure that the loopholes are closed and that any limitations of the major methods used are minimised. He explained the techniques which included the need to understand '*what the students receive then putting in place supporting mechanisms*'. He says for instance, '*what we need to also understand is what students receive…Because what they receive is also an instrument of making them successful*'.

This initial phase involves the 'planning' of the business programme, delivery model and its structure which, according to him, needed to be prioritised and had to be understood very well before the implementation of the model. This he put this way, '*so you need to first get those things really developed and well understood by the people involved. So that is the delivery model that you need to think about*'. So the delivery model has to be integrated and well planned, then developed before moving on to the next step that is the '*development of the programme*'. This process Participant A explained to me as involving the structure of the programme, its purpose, the outcomes, its underpinning philosophy, and how the modules are put together, '*in a way that each module's purpose will serve the purpose of the programme and the outcomes of each module in the programme is speaking to the outcomes of the programme?*' This supports the notion of coherence and integration which is evident in this picture and which he further emphasised in the following statement, '*What are the cross-references with regard to each module? So that it is a coherent, integrated programme that we develop for the students ... long before the students start*'. He emphasised that the academic content should be aligned academically and didactically, and streamlined to students' specific environment, hence planning is so important. The process is an integrated one with all aspects intertwined/interconnected such as the content of the programme, the packaging, which he termed, 'desktop publishing', the learning guides, and tutorial letters, learning material, all of which are underpinned by a 'quality assurance approach and techniques'.

Having explained the approach, the structuring of the programme for delivery, and the purpose of an integrated approach, he moved on to the next phase which involves '*packaging of the content*' which he called '*desktop publishing*'. This phase links with the notion of student support and providing all the essential and necessary support mechanisms to help students succeed. It is of importance to note that desktop publishing takes into considering the technical stuff such as 'layout, the design, icons used, the space in between letters or words so that 'a text is not too text dense'. He explained these concepts to me and supported his statement by stating the impact of this intervention in providing the needed student support:

> *Now just to give you an example, a very simple example, if you look at our learning guides, the print, the font that we use is larger than the normal print at the university because the people that we work with are much older. You can ask me, I cannot see the letters clearly. I don't want to use a magnifying glass to see. Those are the things. What you need to do to raise your throughput rate, to decrease your dropout rate.*

So the packaging of the content takes into account all areas and aspects of programme delivery including interventions at all levels to ensure the success in improving student retention and throughput located within a quality assurance framework. Quality being the 'underlying philosophy' is central to whatever means and interventions are used in that regard. Quantitatively it would have to do with what is in place but qualitatively it is about what is in place and the quality measures in place to make a difference and enrich learners' learning experiences for success. This is evident in the following expression by the respondent:

> *So we have a 'holistic approach' to student support. It is not, hey, do you have a contact session. Do you have a tutorial session? Yes, we have a tutorial letter. That is absolutely very, very mechanical. So it is a quality assurance approach that we have. It is not something that we do. It is in the underpinning philosophy of everything, whether it is how you construct the SMS that you send to the student or whether it is the module that you develop. So I am speaking a little bit about what is happening before you develop the programme, that is, the throughput and dropout rate too.*

From the above citations, themes such as programme 'planning', 'delivery model' that supports 'managerial, logistical, structural, and systems', 'holistically approach to student support', 'quality assurance approach', 'underlying philosophy of everything' supports the point made of a holistic, coherent and integrated approach implying that the model incorporates all activities, assumptions, actions and practices that support planning, design and development of the programme, programme delivery etc. nested in institutional ethos and principles based on a quality assurance driven approach. For instance, in terms of administrative support Participant A gave me a vivid description of this functional area. This support system is built on connected internal activities and processes including text stylistics and desktop publishing, communication, modules and learning cycles, learning material (text and electronic)/content programming, exams and all relevant information dissemination, being conducted through a user-friendly and supportive environment to maximise student retention and throughput rates. So all the building blocks and steps are facilitated and supported through initiatives aimed at improving student retention at all levels of administrative procedures and processes in programme delivery. In this way, the model allows for students to navigate the system and make use of available opportunities and options by means of flexible block cycles/sessions/schedules through '*dovetailing administration and academics so that the students gets a seamless high quality service... Seamless high*

quality!' In this light, '*it is extremely important to dovetail. If we talk about administrative issues the communication is* key'.

This was pointed out by Participant A citing learning materials received by students in block sessions that reveal the purposeful and strategic efforts towards achieving student success. The administrative support and material that students receive is perceived as key by the participant in student success. '*What they have*' is translated to institutional action, as the participant puts it, '*Now what do we do?*' All the steps within the processes interlink and are interrelated maximising coherence. This is evident in the respondent's shared knowledge, experience and insights on what action, steps to follow and strategy to use to ensure real effective approaches in enhancing student success. In that cycle, the student receives, in block 1, the following learning material: module 1, module 2, the tutorial letter, tutorial letter 1, the administrative book, a CD and all the writing material like writing pads and envelopes, and the covers of assignments explained earlier.

The interconnection is made between this process and communication between the students and the lecturers when delivering the academic content. This is seen when the participant explores further saying:

> *The two modules are the academic content. The tutorial letter is a letter that the academics write to the students. It's like a conversation with students... Thank you for joining this programme you are going to do this module. Let me tell you more about this programme. You know it is that academic conversation that is in the tutorial letter and let me also tell you what's going to happen in the next* six *months. These are your* two *assignments that you need to submit and talk about all that stuff.*

This process is critical and necessary to facilitate student engagement with the content and the lecturers or the faculty. This supports Moore's (1991) theory on student engagement to bridge the 'transactional distance' between the learners and lecturers and to strengthen learner engagement academically and to foster a sense of belonging. This can be viewed as transcending lecturer-student engagement to facilitating faculty-student contact. For instance, the communication and administrative processes applied here enhance faculty-student contact and a sense of belonging on the part of the student. This is facilitated through the communication as presented above and further supported by the respondent. In addition, SMS technology is used to further communicate with students and to 'bridge gaps and different worlds of students and institutional dynamics'. This is evident in the following statement by the respondent:

> *This is the broad structure for the* six *months. In between, the students receive almost 100 SMSs. We use SMS technology expenses. We sent out approximately 1, 2 million SMSs per year to our students. We communicate with them continuously to close the gap because it creates a closeness that is part of the student support thing.*

As already mentioned, communication is vital and all means of communication are employed to strengthen communication pathways. The CD as a tool for bridging the gap allows students flexibility in accessing learning material and tutorial letters at their own convenience, considering that most of the students are adult workers (educators) and live quite far away from the campus. They can access the CD (electronic library) which has all the relevant information they need at any time.

4.3.14 Programme structure, systems and processes

The participant thereafter explained the approach, the support structure of the programme and how the system operates. Participant A mapped out the details of the two cycles as follows:

> *We have two cycles: April - October and October – April: six month cycles. The first cycle runs through to October. So, now we have students applying to enroll for the BEd (Honours) programme. So this is now in October. Academic programmes will start in October. They have then six months until April and they sit for their first examination. Then they receive their second block and in October they sit for their examination 2, their third block then they run until April.*

This structure and systems were described by Participant A as complex for some students. A strategy has been put in place that addresses the 'complex' system as some students 'get confused' and find it difficult to navigate through the system. This he puts in the following manner,

> *One of the challenges of the system is that it is so complex that the students don't sometimes understand where they are in their studies. They lose track 'you know of how many exams sessions do I still have' and that sort of thing.*

This observation was supported by the way Participant A 'seamlessly' mapped out the model on the white board on the wall displaying his extensive knowledge and experience of the systems, processes, programme structure and support mechanisms in place. He emphasised that it was important for me to have a thorough understanding of the bigger picture and insights of the

model because that informs the basis for understanding the strategies used to improve student success and throughput. I also observed from his presentation of the model that validated his confidence through the way he elaborated on its design, structure, and implementation strategies that '*students hardly drop out*'. According to him '*the dropout rate for distance education on average over the past ten years was never more than 4%. So we hardly have students dropping out of their programme*'.

4.3.15 Identifying at risk students

Another issue he explained to me related to the complex nature of the system resulting in student confusion mentioned earlier, which he described as 'complex' that '*students don't sometimes understand where they are in their studies*'. Identifying students at risk of not completing their studies involves identifying patterns in student behaviour that can potentially risk the student's success. A strategy for addressing this situation involves 'identifying students at risk' which happens through the sending of default letters to students who fail to sit an exam or two. The process was explained to me by the participant in the following statement '*what we do to support students and it is also part of identifying students at risk, if a student doesn't sit for* two *consecutive exams sessions we then send that student a letter. It goes out by the system by default and the letter says, 'listen we notice that you haven't sat for* two *consecutive exams sessions, we want to know if you have any challenges that you experience. The university... are willing to support you*' This strategy is in alignment with Hughes (2007) theory that improving retention and identifying 'at risk' learners are critical issues in higher education and providing good student support is recommended to address this challenge. The perspective of the participant is that identifying students at risk and providing them with the necessary support they need and putting in place proactive initiatives is a strategy that is effective in addressing student retention and success in distance education. For instance, students that fail to submit assignments or do not write an exam, are tracked and support is offered to enable them succeed. Given the complexities in distance education environments and the profile of students, tracking these students might be difficult since they are physically removed from the learning environment; therefore, identifying at risk students through identification of those who do not log in or fail to submit assignments is important for providing the support they need.

4.3.16 Student feedback

Again linked to the notion of improving throughput and enhancing quality is student feedback mechanisms built into the model. Various techniques and dimensions overlap in this process. For instance, student support, feedback, monitoring and evaluation, and quality assurance are

relational concepts feeding each other within integration processes explored earlier. Participant A elaborated that,

> *We have this approach that you can't manage if you don't measure. It is a simple principle. If you don't measure what you do you cannot manage properly. We do quality assurance and we measure what is happening here, what is happening here, what is happening here, what is happening here, and what is happening here. We have extra-ordinary measurement measures in place.*

The repetition of the word 'measure' emphasises the value attached to 'quality' as a measure of standards for student support and feedback, as well as all systems, processes and consistency regarding quality delivery. To this end, these measures permeate all levels and play out as feedback mechanisms for students and the faculty 'to feedback into the system' in order to monitor quality provision and to put in place turnaround strategies and interventions (where necessary). To support this, the participant said,

> *The students at the short contact sessions must fill out a questionnaire about their experiences on the administrative side as well as on the academic side. We do it here and we evaluate the lecturers, we evaluate the content, and the administrative services. After each of these sessions we have a group coming together where we consolidate all the questionnaires that the students have presented to us and we scrutinise the aspects where we think we should improve. We take that information and it goes back to the specific academics and we tell them that the students were not satisfied with one lecturer because you were not well prepared... those things we feedback into the system on a continuous basis.*

From that point of view, the important role of student feedback is emphasised. Feedback here is shown to be a two-way process with students being actively involved in the feedback system. This supports the notion of student perceptions of the teaching and learning, and assessment. Their views and perceptions regarding these areas add value to ensuring quality. In addition, benchmarking is practised to ensure that quality is maintained in all aspects. This is evident in the way the participant described the approach to 'evaluating' the quality and effectiveness of support structures, administrative services and the management of key areas such as assessment (assignments and exams, marking). He used the words, 'evaluate', 'check', 'scrutinize', 'look at' and the phrase 'markers... are indeed marking according to our requirements' to explicate the measures in place to improve on the programme. So with regard to assessment, appropriate

measures are in place to benchmark practices and to ensure that students are assessed in a manner that would enhance quality at the same time as improving the programme.

This is again supported by his earlier insights into the research his team had conducted to understand the technology profile of the students to enable better reaching out to them, starting with the students' cellular phone profile and usage, then touching on the challenges regarding Internet access which could be seen as a barrier in our context, and thereafter calling for models suited to cater for students' academic needs within their unique contexts. This was clearly evident in his reflections, *'Do they use Internet cafes? To what extent do they use Internet cafes?'* and in his conclusion:

> *'I can tell you now in real terms, this then less than 15% of our students have Internet. Less than 15% have access to the Internet. I can tell you now that there is a massive growth over the last ten years in the accessibility as well as availability of computers. It moved from a very low base in 2002 but the problem is the Internet service that is not always available.*

4.3.17 Student attrition, retention and throughput rates

Participant A's perspective on student attrition, retention and throughput was that they were progressing well and achieving good results. His view was that student drop-out was minimal in the programme due to the effectiveness of the ODL model and the techniques they use. To that effect, he noted that their attrition rate has never been above 4% which was an indication of how the institution is performing in terms of meeting the NPHE targets. This point is evident in the following statement by the respondent: *'The dropout rate for distance education on average over the past 10 years was never more than 4%. So we hardly have students dropping out of their programme'.* Even in terms of throughput, the picture that was presented to me indicated improvements in dealing with this issue. In the interview I had with Participant B which focused on throughput and success rates as well as some of the strategies employed, a similar view was shared. This point was made by this participant in the following statement: '*We are not doing badly. We have actually graduated from the BEd (Honours) programme. 2003 to April 2011 – 6 066 students have actually graduated – 28%'.*

The picture presented above describes the efforts by the institution in meeting the set targets in the NPHE. It is an indication of the improvements made on an ongoing basis in relation to student throughput supported through research and benchmarking practices. In addition, the process is in keeping with evidence-based methods evident in research undertaken and policy document analysis. Participant B took me through the attrition and throughput rates.

This ongoing comparative analysis supports the practice of benchmarking that contributes towards the initiatives for assessing the quality of provision and improving throughput rates.

> *I think from what we have seen from other institutions, we are doing very well, very well. Our throughput rate is actually encouraging and I think it would be connected with the strategies that we have put in place and support structures for our students...*

Participant B further illustrated the impact of this by pointing out that the analysis is an ongoing activity through research to inform the faculty in terms of monitoring throughput and success rates of students in the programme and for improvement purposes.

Participant A gave me the details of the average throughput rates of the three programmes offered (two undergraduate programmes and the BEd (Honours). He explained that the average graduation rates for the two undergraduate programmes are between 65 and 63% whilst for the BEd (Honours) it is approximately 50%.

Participant B provided absolute figures indicating that '*6 066 students have actually graduated*' during the period from 2003 to April 2011 from the BEd (Honours) programme, while only a 4% attrition rate in 2012 was evident. At the same time, the findings revealed that during the period 2003 to 2011 the attrition rates of 3% remained constant (see Annexure A). These statistics Participant B sourced from a presentation to verify the information she presented. It is therefore important for the purpose of answering the research questions in this study to note these trends in relation to the targets set in NPHE. It is also worth noting that the participants attributed these outcomes to the ODL model.

During this conversation Participant A explored these concepts: attrition, retention and throughput, and he shared his knowledge and experience of how the institution was managing student retention and throughput. However, some challenges were revealed (explored later) that might risk and potentially undermine the efforts of the faculty in addressing student retention and throughput. Of importance to note are the strategies focusing on the model to address these challenges.

Firstly, the respondent situated the concepts 'student attrition', 'retention' and 'throughput' within a holistic frame starting with defining them to get a better understanding of the terminology as a basis for understanding the distance education model the institution employs. He defined the concepts 'throughput', 'success', and 'dropout' according to the university's definitions of the terms and the meaning it attaches to these terms. This is evident in his views

that these are '*extremely complex terminologies that are not always used in the same way*'. These are contextual issues that need 'unpacking' to get an insider perspective of the underlying meanings starting with how these concepts are defined. He used three categories of students to define the concepts:

Firstly, he defined the meaning of 'dropout' in the context of the institution saying, '*drop-out means the following for us: A student terminates his/her studies before the end of the study*'.

Secondly, he explained the meaning of 'fail' as those students who did '*not complete the programme, meaning they have reached the end of the maximum period of studies that means that they have failed. Fail is something else. That means that they have not completed up to the maximum period of time but could not finish in that time period*'.

Thirdly, he described 'throughput' in terms of those students who '*passed before the end of their study period*'.

In the respondent's view it is important to understand how these terms are defined because they are 'extremely complex' and are used interchangeably and can be measured differently in different contexts. For instance, in the literature I reviewed on student retention and throughput different definitions of student retention, attrition, graduation, completion are explored reflecting the differences in how these are measured in different countries and contexts. This may result in different interpretations and difficulties in measuring student attrition and throughput rates due to a lack of common understandings of these terminologies and their measurements within and across diverse contexts.

Participant A explained to me that it is 'extremely difficult in our model of distance education to follow the throughput rates in our programme'. This view was shared by Participant B from the same distance education unit whom Participant A suggested I interview for more details and verification of the throughput rates in their distance education programme. Participant B indicated that, 'monitoring that profile is difficult because the profile is unstable, it keeps changing'.

According to Participant A, the difficulties in monitoring the throughput rates of the distance education programme in the past two and a half years stem from the technological developments and shifts in the students' system with the introduction of 'a new students' information system, that the institution was still working on at the time of the interviews for 'measuring throughput

rates exactly'. Nevertheless, 'very specific and detailed analysis' of the programme for the past seven years was conducted which allowed for some information in this regard.

Having said this, I now pay attention to the ODL model as a means of exploring its effectiveness or limitations in improving student retention and throughput and to analyse the data and evidence presented since the study also seeks to investigate the effectiveness of the strategies employed by the institution.

4.3.18 How effective is the model/strategies?

Through the narrative of the story of Institution A the trend that emerges in relation with improving student retention and throughput is one of success. This is evident in how the participants explored the model used by the institution in addressing student retention and throughput rates in attempts at meeting the targets set in the NPHE. The respondents shared their experiences and knowledge regarding the institutional efforts in meeting this strategic imperative, the challenges and the strategies in place to address the challenges. This is evident from insights shared and the detailed descriptions, and the information they made available to enable me to understand how they are dealing with this phenomenon. The major challenge faced is that of the 'transactional distance' between the students and the lecturers elaborated on in the two stories. They reported a mix of techniques and flexible methods which are built into the models to address specific academic needs of students in the programme, which has resulted in improved student success and throughput, as Participant A declared: '*It is so open like the one at our university and that results in the positive throughput rates and the positive retention rates'*.

Another challenge Participant A mentioned as part of the processes relates to administrative support in distance programmes that could potentially undermine initiatives on improving student retention and throughput rates. This he expressed as follows:

> *But let me tell you the biggest thing that can totally destroy the dream of the business student is the poor administrative services because you can study as hard as you wish and you administratively mess their lives up, they will be unsuccessful. So here is the challenge in distance education has to do with throughput and retention too, and it is how do you dovetail administration and academics so that the students gets a seamless high quality service that is what we are in for. Seamless high quality! So you can't have a great learning guide and then the student must wait* five *months before to get their time pack. I mean it doesn't make sense.*

> *It is extremely important to dovetail. If we talk about administrative issues the communication is Key.*

These were some of the challenges that he explored and shared with me to give me an understanding of some of the reasons why students don't succeed or that lead to student attrition. This picture presented above in relation to administrative challenges shows that some of the reasons for student attrition are as a result of improper or inadequate institutional administrative practices (caused by the institution) and not the student's personal reasons. These might influence a student's decision to stay or leave especially when viewed in correlation with student satisfaction. Other reasons for student attrition are personal and out of the control of the institution, including pregnancy in women, explored by Participant B in her presentation of evidence and information on student profiles and reasons for low throughput rates. This is seen in her statement:

> *There was the challenge of how the throughput rate is that people often criticise distance education for, but I agree with scholars who say that we judge. Throughput rate in the distance education, the question should be why? Why do you have low throughput rate? You have to look at the enrolments – pregnancy – ladies get pregnant and maybe give birth before – so you have to consider some factors before you condemn.*

This view supports what Participant A earlier mentioned when he presented information regarding the student profile in which he emphasised that females who are the majority in the programme face numerous challenges. They are an at risk category so far when one considers the roles and responsibilities they have and pregnancy as Participant B explains above. These factors have implications for female students' retention and throughput as well as threatening institutional initiatives aimed at improving student retention and throughput more especially that females represent the majority of students in the programme. For instance, Participant A viewed females who comprise 80% of the students in the programme as finding it 'extremely challenging' since women have so many roles and responsibilities in society and find it difficult to balance studies, professional or careers, and family lives. He put it this way,

> *The second thing is more than 80% of our students are women. The burden of women in societies being senior people, being mothers, being wives, being teachers, no longer younger in the school but having senior positions is extremely challenging for that group of people.*

Linked to the notion of meeting students' specific academic needs is understanding the profile and background of students with a view to provide effective and efficient student support. He mentioned student demographics such as age, gender and the geographic location of students as variables that can potentially risk the students' chances of succeeding. Variables such as age and gender were correlated to student performance, persistence and success. In this regard, he described the students in the programme as 'older generation', and 'age challenged'. This can pose as a challenge for the faculty in terms of ensuring that these students are retained and they succeed. In this context these are students who really need to be up-skilled in terms of technology usage and knowledge as the majority is technology challenged. This view is shared by Participant B who explained that

> *Our programmes are peculiar because our students are adults, over 40 years of age, most of them. So they are adults and these are people who one way or another have not been exposed to much studying on their own maybe. So these are students who need more support.*

Mechanisms such as student support are enforced as mediating interventions for this group of students. The notion of meeting the academic needs of at risk students is introduced here as one effective strategy used to empower these students. This is seen in the following strong view expressed by the respondent: 'So our job is to look at in what way can we really support our students?'

What is evident from the stories of both participants is that there are varied reasons for either student attrition or low throughput rates. Both participants touched on personal and institutional reasons. The students' personal reasons included lack of technology literacy, explored earlier whereby the student's lack of technology knowledge or illiteracy inhibits the student's success.
In addressing these challenges Participant A mentioned that the model used a nested approach (mentioned earlier) and strategies of student support is a major key. These strategies are acknowledged by both respondents as being very useful and having been adopted for and informed by students' experiences, quality assurance, and learner support initiatives and so far have yielded good results in addressing student retention and throughput rates. This is evident in the throughput rates indicated earlier and the 4% dropout rates. One of the pillars of this model is student support which is explored in the section below.

The strengths of the model have been sufficiently validated in the narratives and the supporting documents regardless of the challenges which were addressed systematically through a deeper

understanding of the students' needs and working on them. The model's successes are understood through application of strategies to address the transactional distance theory, designing 'nested' conceptual approaches, and an effective student support mechanisms. Certainly these provide lessons for replication to other similar contexts.

4.4 Case study 2: Institution B

4.4.1 Setting the scene/Overview

Having applied for ethical clearance to conduct research and permission to access institutional data from the second Institution's Research Committee, approval was granted. This process involved following all the ethical protocols starting with completing all the documentation (application forms stating the purpose and the significance of the research, consent letters, etc.). Thereafter consent letters were sent to the individual people to be interviewed and the Head of the Distance Education Unit. I was then granted permission to interview people with extensive knowledge and experience of distance education programmes offered by the institution. An interview was scheduled for 11 February 2013 at 12:00 a.m. at the participants' offices on campus. Introductions were made and I explained the purpose of the interview to the participant (hereafter referred to as Participant X) and adhered to ethical protocols relating to confidentiality and voluntary participation. The consent form was signed by the participant and thereafter we proceeded with the interview. The interview was an unstructured one enabling easy dialogue and an open conversation that provided detailed descriptions of how the distance education programme was developed, structured, paying attention to the faculty's systems and processes. The challenges being faced by the faculty in terms of student retention and throughput within the distance education environment and the strategic interventions used to address these challenges were detailed. The participant provided a rich narrative and insights into the model for improving student retention that is explored below. As a seasoned academic and Head of the Unit of Distance Education, his expertise, extensive knowledge and experience of distance education and the programme were invaluable in terms of providing answers to address the research questions.

The interview was organised according to the sequence of each questions with the participant answering all questions in that sequence. During the process of responding to interview questions it became apparent to the participant that some questions could be addressed by providing additional details from other faculty members. These were questions that related to

the management of student enrolments, examinations and graduations and the provision of documented evidence in that regard. So he recommended that I interview the Programme Manager as well to provide further information and evidence especially with regard to student matters. I interviewed the other person afterwards.

4.4.2 Institutional initiatives and commitment towards improving student retention and throughput

Through the model explored by the participant, the faculty's commitment towards contributing to the institution's strategic objectives and responsiveness to socio-economic needs and human resources development in South Africa was evident. This faculty's role involved improving student retention and throughput through distance education, focusing on training more teachers and upgrading teacher qualifications particularly of those who were disadvantaged by the previous Apartheid education system.

Institution B's initiative to improve student retention and throughput through their distance education model was internally driven making its case similar to case study 1. The motive was in response to ministerial mandate on higher education institutions to focus on increasing access and throughput rates. The drive was based on the need to train more teachers, to up-skill them, and to upgrade their qualifications in response to this national imperative, human resources development and redress of the past imbalances in the education system. The fundamental principles were access, equity and redress, and quality in ensuring that this objective was realised. This links with the concept of lifelong learning in the context of continued professional development of teachers to improve the quality of learning in South Africa. Basically the fundamental principles and objectives were alike in both case scenarios.

4.4.3 The purpose and history of the programme

The purpose, history and the Open Distance model (see Figure 4.9 in Section 4.9 below) was conceptualised around meeting this imperative objective. In that light, a historical perspective was shared by the interviewee that led to the development of the distance education programme. Participant X provided a detailed historical account of when and how the distance education model was developed starting back in 1994 to address the systemic nationwide challenge of *'85 000 teachers who were under-qualified'*. Distance education delivery was considered as a key strategy in increasing access of teachers into the system and retaining them. Thus, improving their retention and throughput rates through distance education was viewed as the viable option for achieving this objective. Though it was not explicitly expressed in the interview, institutional

leadership and management influenced the decision for using distance education mode of delivery. From the language the interviewee used, I discerned that the underlying assumptions of the leadership at the time was that distance education was the most effective mode of delivery to upgrade teacher qualifications given their respective needs and circumstances. This thinking was rooted in understandings of pedagogical challenges and historical underpinnings that had an influence on the quality of teaching; therefore there was the need for a proactive turn-around strategy in response to demand and as a means to contribute towards human resource development and knowledge creation. This position was emphasised from the onset of the interview when the interviewee provided a thorough perspective of the history, the evolution and the current status of the distance education programme.

> *I have to go back in history if you don't mind. In 1994, with the new South Africa, you will be aware of the fact that there were 85 000 teachers who were under-qualified. So, we had decided to become involved in distance education for teachers because we realised that it was impossible for them to go full-time into university, distance was a problem and so on and so forth. So we started ourselves in 1994 that was, with a three-year* diploma. *At that time, it was called the BEd, not the BEd (Honours) in the late 1990s.*

From the above reflection on the history of the South African education system, issues of quality and unequal access to quality education by teachers who for the majority are from previously disadvantaged backgrounds are fore grounded. The challenge of distance for the teachers in accessing full-time studies at university was raised and distance education highlighted as the viable option to address this challenge.

4.4.4 The rationale for using distance education

The role distance education plays in this regard was emphasised drawing on the Green Paper for Post-School Education and Training (Department of Higher Education & Training 2012b) that validates the role of distance education in improving student retention and throughput. Emphasis was also placed on its role to increase the number of teachers in the system in response to the systemic challenge of shortages of teachers and the fact that the teaching profession is failing to attract youth. In elaborating this, the interviewee said,

> *If you look nowadays 58% of all learners in the world are in distance education programmes and I think you are aware of the fact that the Green Paper from the Minister says very clearly we want distance education because that is the only way to give access to a lot of teachers.*

The student profile was further detailed as follows covering its global footprint,

> *So the model that we follow is that we have at this stage 39 tuition centres throughout the country and in Namibia we have also 3 000 teachers. Also in our programmes – honours – I think to be quite honest in as far as teacher upgrading is concerned, we are the biggest in the country.*

The expansion of the tuition centres throughout the country is an indication of the impact of the reach-out strategy through distance education. The positive impact it has made on increasing access to teachers and its global impact is evident in the statement above attributing these achievements to the model used by the institution.

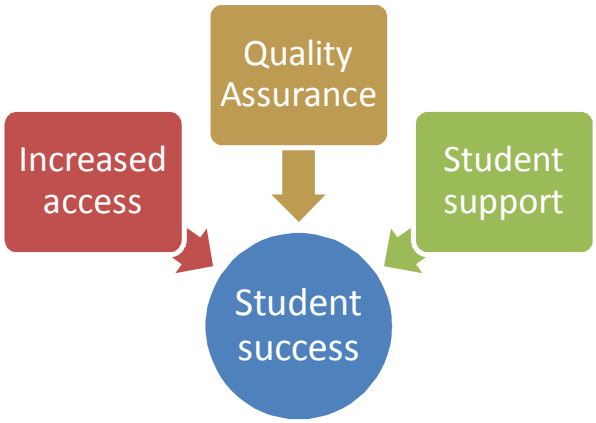
Of importance to note also here is the reference to a mix of methods in the teaching and learning including contact sessions. My observation was that value was attached to the use of what Participant X called 'interactive contact sessions' which he reflected on with pride saying, '*We were the 1st university to introduce interactive contact classes. Perhaps you know it. We use the smart board*'. This is an interactive method used in distance education to bridge the gap between the students and the lecturers, it strengthens engagement and communication, and it also stimulates critical thinking in students. The smart board technology is detailed later in the chapter.

4.4.5 Institution B's ODL model: Conceptual framework

The model was explored detailing its structure and application. In defining open distance learning (ODL) the participant said, '*ODL, the definition that we use is that you can register at any time of the year. So you don't say I do this only through to October and then we close, you can register any time*'. In describing the model quite a variety of interrelated factors were mentioned in terms of how it was built and how it operates. From the onset a sense of interconnectedness of concepts, principles, sub-systems and processes and other support mechanisms were indicated to suggest the integrated/complementary approach used. For instance, the notion of increasing access of teachers and the concepts of quality, teacher upgrading, training, quality programmes, are interconnected and are linked to expansion of programme delivery in order to '*improve our quality*'. Of importance to note is how quality is viewed by the respondent. It is the underlying philosophy of the model. Figure 4.3 below illustrates the model of the institution which is underpinned by quality assurance framework. It is a similar approach to Institution A's in ensuring effectiveness of the model in addressing student retention and throughput. Quality assurance mechanisms are built into the model (discussed later) and are linked to strategies to

increase access and effective student support structures to enhance the student experience and support through their journey in the learning process.

Figure 4.4(a): Institution B's ODL Model



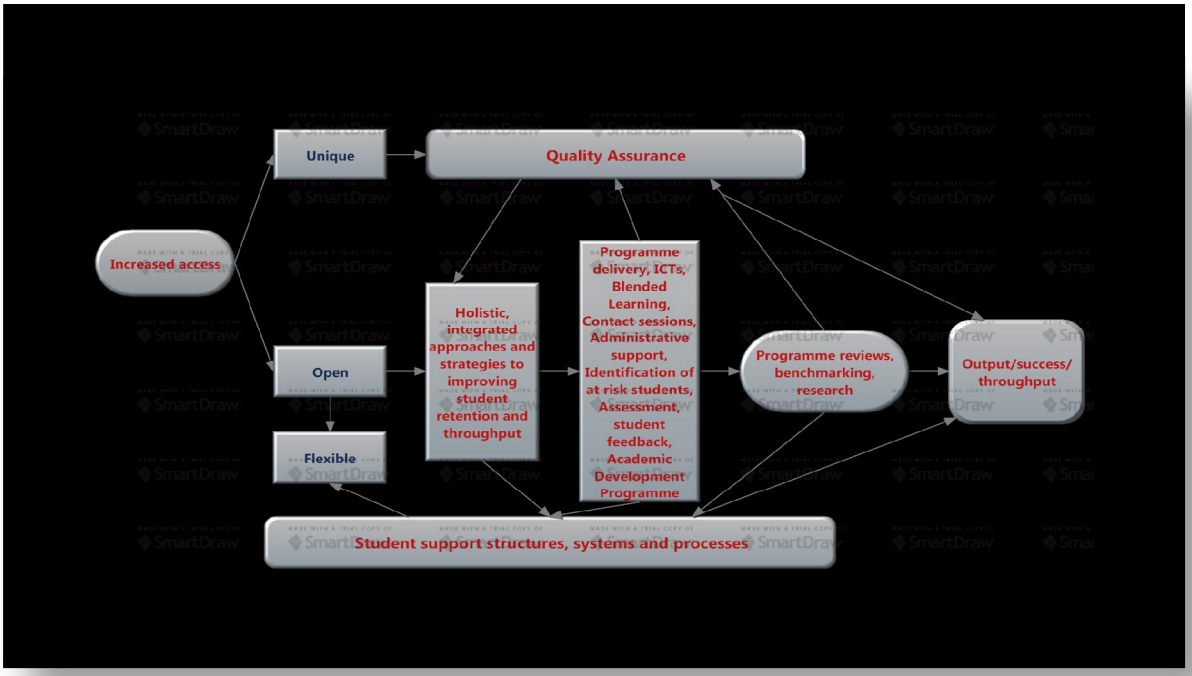
The centrality of quality is emphasised in the expressions used and the argument concerning the vital role of quality in the delivery of the distance education programme. So quality is linked to increasing access and success.

> *As I said we are very strict on quality. In the beginning at this stage we have* two *international audits. The* first *one was done by a university in the UK, the biggest one in Europe. And in 2011 we also had an international audit by a team from Australia, Belgium, UK and Uganda. And then we also have the HEQC Audit where they described our model as the model for the future for distance education in South Africa, that's on paper. Ja, and we also have a quality audit with all the programmes that we are offering. We were* three *different people from* three *different universities, lecturers, professors, senior professors, to look at the content of our material if they are happy. Quality, ja, that is our mission and this is to help teachers get upgraded qualifications.*

Figure 4.4(a) presented above supports the idea of benchmarking to ensure best practice to enhance quality of delivery and for improvement. This practice of benchmarking is in line with international practice to ensure quality. What is important to note here is that quality is the fundamental principle that shaped the model with respect to embracing an all-encompassing approach to student retention and throughput. Figure 4.4(b) illustrates the model of the institution to improve student retention and throughput. It illustrates all the integrated processes and strategies within a quality driven framework. In that light, techniques such as the use of

ICTs and interactive contact sessions to provide effective student support were modeled according to quality requirements.

Figure 4.4(b) Institution B's ODL Model and strategies: The holistic approach



In this model to ensure effectiveness in improving student retention and throughput, different methods were applied. These are not exclusively separate as the processes feed into each other. In the initial period a variety of methods included the use of '*appointed full-time centre coordinators paid on a monthly basis by the university*', '*a small library reference centre at each tuition centre*', '*Internet access at each of our study centres*'. However, maintaining these facilities proved difficult and expensive and the Faculty resorted to alternatives such as the use of technology. In addition these 'satellite campuses' should be accredited by the HEQC.

4.4.6 The distance education environment and the strategies to bridge the transactional distance

It was evident from the conversations I had with participants from this institution that the transactional distance was a thorny issue. Careful consideration of the strategies informed the approach and the model for addressing this issue. These include ICTs, SMS, Mobile Technology and Moodle, contact sessions discussed in the sections below. It is worth noting another major challenge regarding the limited research skills of students in the ACE programme discussed later.

Therefore the transactional distance and the limited research skills of the students emerged as the major challenges experienced by this institution.

4.4.7 Use of Information and Communication Technology (ICT)

The use of interactive contact sessions through the use of the smart board technology was introduced. This process was explained by the Participant X as follows:

> *So from then we started to appoint full-time centre coordinators paid on a monthly basis by the university... a small library reference centre at each tuition centre where students can find all their necessary books and extra reading material ... have* Internet *access at each of our study centres. It was a costly thing to pay all these facilitators. We have 350 and paying between R4 million* to *R5 million per year. So we said alright, we must follow the technology that was developing in the world. We were the* first *university to introduce interactive contact classes. Perhaps you know it. We use the smart board.*

The smart board appears to be flexible, and cost effective allowing for the engagement that the students needed. The technology allows for interactive engagement between the lecturers and the students at the same time closing the transactional distance between the students and the lecturers.

> *The lecturer is here in the studio or his office and doing a broadcast to all these centres. So we put up white boards, at least two at the centres.*

The use of the smart board was perceived to be effective by the students, especially the BEd (Honours) students. This view was expressed by the participant:

> *The BEd (Honours) class is not such a regular attendants of contact classes, more of the NPDE students, because they want to attend classes one to one. So we asked the students why? They said the study material is so interactive they don't need to go to a contact class - so they can study on their own.*

The participant further expanded on the concept of the whiteboard describing it as follows,

> *You have here a whiteboard. Every centre can write on the whiteboard, so you can give them for example a problem and they can all do together and you can see this thing.*

This suggests the potential of the whiteboard in facilitating engagement and flexibility in the learning process. Since it is engaging, it is interactive and practical thereby promotes co-

operation among students whereby students are actively involved in the teaching and learning processes through group activities. This has the potential of fostering a student-centred teaching and learning culture whilst at the same time students receive support they need. In other words an enabling environment is created for students who are self-directed and independent to navigate their way in their studies by providing space for them to engage in a fashion that mirrors the mostly traditional face-to-face learning environments. However, too much reliance on this technology might be experienced as a barrier by at risk students who may need more support such as more contact sessions considering the theoretical nature of the BEd (Honours) programme. There might be a need to critically reflect on creating a balance between the contact sessions and the whiteboard technology to offer more support to students especially those who are at risk. To address this gap Participant Y explained that they still use facilitators.

> *We are a little bit restricted now on the amount of classes, so therefore we still use facilitators. We still make use of lecturers going out to the provinces to conduct classes.*

The use of facilitators and contact sessions adds value to the theoretical component of the programme. This suggests the need for an appropriate balance between this technology and more contact sessions as indicated by Participant Y. At the same time, acknowledging the successes brought about by the whiteboard technology, especially with regard to its flexible and interactive nature, is important for the purposes of this study. However, the participant expressed frustrations in facilitating student engagement in these sessions. This highlights a tension in students' interactive patterns whereby students at some points are passive and not proactive enough in a self-directed way. The tension manifests itself in the whiteboard being an interactive tool which could be a barrier if it is not used properly to engage students sufficiently in the learning process. To support this statement the participant said,

> *As I have said it is interactive. They can ask questions anytime. Some of them lecturers stop them and say, 'please pens down, I want to ask you a question' and they must as a group and then they must reply back. So that is how you can force them to take part but most of them when they want to ask questions, they can ask at any time during a session.*

There is overwhelming evidence in how it is flexible, student friendly, and allows for collectiveness involving all role players in teaching and learning in turn encouraging student-faculty contact. The participant gave further insights into this technology detailing how it works indicating that,

> *Interactive means that the student can ask questions at any time with the lecturer from the centres. They can stop us and say, 'look I don't understand, you say, a × a = a², could you explain that?*

Again the notion of 'flexibility' which is a central concept in distance education surfaces here: the smart board technology is easily accessible to students anywhere, anytime, and they can engage with lecturers, ask questions, be critical, comment on the content of the material, etc. This provides opportunities for students to really engage and develop critical skills and problem solution skills. At the same time, this approach proves to be effective in terms of bridging the gap between students and the lecturers in distance education.

4.4.8 SMS, Mobile technology and Moodle

However, limitations were identified during the conversation with Participant X. For instance some students were not actively participating in these broadcasting sessions necessitating the implementation of techniques that are integrated at different levels, interjecting with each process or action. For example the use of SMSs is a supplement or an additional support mechanism. This was expressed by the respondent, who stated:

> *...and if they afraid to ask questions, they can send an SMS, it is running on the screen next to the presenter.*

In this way other built-in mechanisms are used as support systems right there during the broadcasting. Another level of this integrated approach is revealed in the application of other additional support facilities and resources such as the use of 'Moodle' explained below:

> *And the other important thing is that if you miss a class, the moment when the lecturer is finished with the presentation, we put it immediately on Moodle on the* Internet. *That means you can go after that and watch it as many times as you want. So that is at this stage our main model that we use.*

The accessibility of the Moodle which is a mini e-library at other times outside of these normal sessions highlights an important practice of offering students extra support to close all the gaps identified in the learning process. In this regard, an additional resource is the use of facilitators to enrich the students' experience of learning. The call centres, for example, can influence student engagement and their proactive learning abilities and activities through a lecturer facilitated method. This is explained in the following statement by the participant:

> *We use the facilitators and we have a number of modern call centres where students can call in every time, we put through to the lecturers.*

This process speaks to the administrative processes which in turn are linked to the management of academic processes. This also has huge potential of enhancing communication between the students and the lecturers and increasing engagement. It allows students to '*call in every time*' and they can access the lecturers, providing them space to be proactive in line with the principle of student centredness.

These processes support the integrated holistic approach that the model upholds with each process feeding into others at different levels. The aim is to tighten loopholes and ensure that gaps are closed and that support systems are managed efficiently and effectively. For instance extra hands such as the 'Open Learning Group', known as 'administrative collaborators', are employed for strengthening support to administer the whole process.

> *If it is an academic question or it is administrative we handle it from here. To run this whole business we use our Open Learning Group, they are our administrative collaborators. They support us with the marketing. The moment a student enrols with us, the application is sent through to the campus and it is approved and then each student form we get.*

From the insights presented above, a comprehensive and integrated support structure frames the model. The structure follows interconnected processes and steps explained above, with mediating tools in between techniques enforcing institutional action. This strategy encompasses student support through supplementary techniques explored below within an overarching integrated student support framework.

4.4.9 Contact sessions (face-to-face teaching)

Supplementary techniques include contact sessions or face-to-face teaching. During this time lecturing happens with lecturers doing the broadcasting. A programme is followed which is structured to support students who are at risk explored in the section below discussing at risk students. In the case of this institution, at risk students are those who are in the modules not performing well and those who are at risk of completing their studies due to either failing to submit assignments or writing exams.

> *So what happens at this stage, we have two vacation schools; at about 12 days at the beginning of December and at the end of July. During that period we have a timetable and we normally*

> *concentrate on the module where the passing rate is not so high...The difficult module. The module where the pass is 96% we say no it not necessary, so perhaps for that module we will only have the broadcast once or twice during the semester.*

Again to illustrate the integrated approach that the Faculty uses, the participant mentioned other classes and exams. This also supports the idea of supplementary techniques and the use of a mix of teaching and learning methods. These classes explained below are meant to prepare the learners for exams. This approach was confirmed by Participant Y from the same institution:

> *so therefore we still use facilitators. We still make use of lecturers going out to the provinces to conduct classes... what we do is that study guides are designed in a way, for off campus distance students. So the study guides are a little bit different from our contactstudents' study guides. And then also, like I say, our communication is by means of these platforms and tutorial notes and so on.*

Therefore at each and every phase of the module or course there are mediating tools to facilitate the application of proper support structures. For instance the use of other classes creates well balanced and coordinated contact sessions to supplement the online instruction presented earlier. This can be seen in how they are structured and well-timed during the module – allowing for appropriateness in the design of the blended learning to enrich the student learning experience.

> *We have other classes that start on* 1 *April and* 1 *October and we have exams in April and in October. Then we say very clearly we have a minimum and a maximum study duration period. By that I mean minimum is 120 credits.*

Another dimension is the use of Facebook in enhancing communication between students and lecturers, and amongst students explained by Participant X:

> *... we have contact sessions, we have group discussions but we also have/make use of* Facebook. *Especially for the BEd (Honours) student; and they are chatting amongst each other, from time to time. The lecturer can check on* Facebook *and identify or see the general problem and he can deal with that. So we also have the* Facebook *discussions.*

The trend emerging here supports the idea of integrated, holistic approaches and supplementary techniques in order to tackle the complexities of distance education and particularly bridging the 'transactional distance'. Therefore it was evident that the

practice of the participants aligns with Moore's (1991) theory on application of various techniques to address the transactional distance.

To further close the gap, blended methods are applied by the institution through a process involving the distribution of material, study guides that have been designed to fit the needs of off-campus distance students. In other words the study guides are '*a bit different from the contactstudents study guides*' accompanied with a communication strategy explored earlier and tutorial notes and student support.

4.4.10 Identifying at risk students

At risk students are contacted and offered extra classes and support. Most of the tutoring is done by facilitators at the tuition centres. Identifying at risk students is a strategy used in distance education targeting those students that need support. In the South African distance education context it would be helpful to provide that support because most of the students in these environments are working adults who can't study full time because of limited time, work pressure, personal circumstances and other constraints to accessing full-time studies. Therefore there are arrangements (evident in the affirmation below) that the faculty of this particular institution makes in an effort to support these students. To support this some ideas, concepts, instruments including social media (Facebook) were explored by the participant aimed at enhancing communication, student engagement, interactive learning, group activities, et cetera, evident in the following statement:

The participant also mentioned offering research support to the BEd (Honours) group of students during contact sessions as these students experience difficulties with the research module. This is one of the modules that the participant mentioned earlier that has been identified as the difficult module implying that it is categorised as a poor performing module. This is illustrated in the following statement made by the respondent:

> *But for the research module, for example, in the BEd (Honours) we have about 20 contact classes via the whiteboard, where lecturers will do the broadcast. So what it means,* two *vacation schools and every Fridays and Saturdays we have broadcasting from here and as I said that some of the modules are facilitated by facilitators at the tuition centres.*

Another layer of this model relates to time to complete the study programme. Ensuring that students are mindful of time on task and time to completion is another effective strategy tied to identifying at risk students. These interventions are applied during the course of the programme.

> *If you can complete it in one year you can do it but we give you a maximum period. If you don't complete in that period, we say sorry we terminate your studies and you can't come back. …And we also say that in the maximum period of three years you have six examination opportunities per year and you can decide the first one you want to skip, no I am not ready, or you can skip the third one. It doesn't matter; you have six to complete your studies. Unfortunately you can't complete it if you do less than two exam opportunities. That means in one year 120 credits.*

The picture presented here suggests that there is a limitation to its flexibility. Though it does allow options for students in terms of when to write exams with 'six examination opportunities per year' there are strict rules attached to time to completion (three years). A review of this policy might be necessary to allow more student time, space and flexibility to enrich their learning experience, especially when one considers that these are adult students, studying part-time, faced with other personal responsibilities such as workloads, pregnancy, family responsibilities, etc.

4.4.11 Student feedback

Student feedback is built into the model to evaluate teaching and learning, and assessment practices within the programme. Feedback is essential in improving quality in the programme and the institution's approach is holistic and happens on an ongoing basis.

> *We send questionnaires to each of the learning centres. We evaluate the lecturer either the facilitator. We evaluate the programme, we evaluate the module. We evaluate the interactive whiteboard. We ask them for example ... a lot of questions.*

The questionnaire included question items about contact sessions. The students are asked questions about the punctuality of facilitators during these sessions. These evaluations are conducted twice a year to students to find out whether the material was delivered prior to the contact sessions. Did the students find the venue suitable? The participant explained that they evaluate on a regular basis.

The management of these evaluations '*has to do with the management of the whole programme*'. This process involves a broad approach to evaluation at all levels of programme delivery including activities and people within the programme. This process is to a large extent learner-centred with students providing feedback on teaching and learning through their responses to questionnaires. This feedback from students feeds back into the system and is usually useful as a technique to improve upon the system. For instance, 'if there is a problem in Umtata, with the centre and there are no tables to sit around, whatever', or the facilitators in any centre do not pitch up for the contact sessions in time, or they read out of the book, if they are not doing their job, their contracts are terminated, for their conduct is impacting negatively on quality about which the unit is very strict. This was viewed as very important for the management of the whole unit to monitor quality delivery.

4.4.12 Other challenges experienced in the distance education programme

In the interview with this participant a number of challenges were raised. In terms of his perspective on the challenges facing this distance education, the major challenge relates to the 'passing rate in the research module' which he views as having being influenced by the poor quality of education the students previously received.

> *I think the most challenging factor and most of the students struggle with that is the passing rate in the research module. I think the background of our teachers as far as research is concerned is not so good. And I think it is due to the previous programmes they followed.*

The participant elaborated:

> *Take for example, in the ACE (there) is one small module they do in this university in research. Now suddenly they have to go to a mini script and all those things and a research project and then they struggle.*

He further viewed the challenge in terms of standards, competences and skills of the students. He expressed concerns regarding the 'high' standards attached to the requirements. The module is problematic as it consists of a research component which according to the HEQF is an integral part of the honours degree. The research component is crucial to the students' fulfilment of this qualification and is required to demonstrate the competencies and attributes required including research knowledge and skills. At the same time, basing his perspectives and opinions on his personal experience in relation to the students' experiences, the participant

expressed concerns of high standards suggesting that this is a threat to success if not addressed properly to enable students achieve the desired outcomes. This is evident when he says:

> *That is one of the biggest challenges that we have ... As I say they really struggle with that module. Personally I feel that the standard is too high. When I did my honours, 30 years ago, we sat to write an introduction, literature study and how you will conduct the research. Now they say you have to complete the research. So you have to do interviews, collect data, whatever, so it is a huge start, I think it is a mini master's degree. Now, I think this is one of the troubles we have with the BEd (Honours). That is one of the problems.*

In exploring this issue he reflected on the trend providing a historic perspective on standards and the realities of the student's world. His outlook on the matter reflected a personal view 'personally I feel that the standard is too high' compared to his own personal experience in his education life 'when I did my honours, 30 years ago, we sat to write an introduction, literature study and how you will conduct the research'. This view expressed an important dimension to quality vis-a-vis standards in a realistic sense. What is suggested here by the participant is the necessity of creating a balance between expectations and realities – for effective strategies to be sustainable. In other words meeting set objectives should go hand in hand with the realities of the student's world.

However another dimension is revealed here that begs for further investigation into this whole issue of standards and the entry requirements into the BEd (Honours) programme which is in this case the one-year ACE. What is confirmed here in the conversation with the participant is the reality that the ACE, which was a temporary measure to up skill educators, was inadequate as an entry measure into the BEd (Honours). There is a need for research into alternatives or innovative strategies to address the lack of educators' research skills identified by Institution B. This may imply the use of extra academic support and extra classes focused on the development of research skills of students in and/or the incorporation of a focused research development component into the national teachers' development programme, the Department of Education's national drive to improve the quality of teachers in the system.

Another challenge the participant explored was the distance between the students and the lecturers which was also raised by Institution A. The challenge with distance in distance education has been in existence a long time. As already noted in developed contexts there is a blurring of boundaries between the lecturers and students due to ICTs and the readily accessibility of technology and the Internet. On the other hand, in developing contexts the

situation is complex with the majority of the population not yet able to access the Internet. In the rural areas of the developing world where the majority of these students are geographically situated, the Internet has not yet penetrated. This poses a twin challenge of increasing access and improving throughput.

This challenge is compounded by limited or lack of Internet access to these students. He also reflected on the students' own efforts, determination and commitment to their studies which have been made possible by the inclusive comprehensive strategies of the institution.

> *There is one thing – about 98% of our BEd (Honours) students are black teachers and the* first *thing I realised is the desire amongst those teachers to improve their qualifications. That is very honoured. Secondly, typically of our students is that quite a big number come from rural areas. So it's difficult for them to attend classes, they have no* Internet *access, there is nothing at school. So what I am trying to say is that the circumstances under which they study is very difficult. So that is why I appreciate the pass rate. It shows to me that they really want to improve their qualifications.*

Age was viewed as an inhibiting factor or barrier to success. Yet, as reflected above, these students actually use it to their advantage as an opportunity to improve their qualifications irrespective of their age. The participant described the students as '*not young students. They are older... they are between 35 and 50...in that age group*'. This means that they are mature students who prove themselves to be responsible and determined to achieve their goals.

4.4.13 Strategic interventions in addressing these challenges

In addressing these gaps Participant X explored the strategies which included organising extra classes and contact sessions. These are linked to the notion of providing support structures to at risk students through targeting at risk modules or what the participant termed poorly-performing modules. This is evident in the following statement by the participant:

> *I have already mentioned what we try to do to solve the problem. But we also do is that we look at the exam results firstly of all the modules and secondly of the tuition centres (learning centres). All the modules which have a passing rate of less than 60% we arrange extra tuition classes, and if there is a problem with a specific study centre then we send our lecturers – our full-time appointed lecturers to that centre, to do some extra classes, and we arrange extra whiteboards and so on.*

With respect to specific strategies that ODL providers used to improve the throughput rate such as learner support structures and systems, the participant emphasised the point already made. He did this by repeating and placing more emphasis on 'rescuing' modules that are problematic and pulling off interventions at the module level. Extra contact classes are organised to support student-centred activities and extra support mechanisms for students doing these modules. Overall, the approach is integrated, multidimensional, student-centred and very flexible as illustrated in this explanation provided below by the respondent,

4.4.14 Student attrition, retention and throughput

The faculty does experience student attrition or non-completion of their studies. The trend shows that annually the faculty terminates students' time for their studies. Personal reasons were cited as the main reasons why students leave without completing their studies amongst others. This is evident in the following statement made by Participant X who stated that '*we have quite a big number of students that we have to terminate their studies, I am quite honest if I have to say 1 200 of the 25 000 per year. And there are so many reasons for that*'. From the respondents' viewpoint, it is the faculty's decision to terminate the studies of the students due to poor performances or due to students not meeting some requirements – such as time to completion. However, the onus is on the student to complete their studies and the trend shows again that it is personal decisions rather than choices that determine students either staying or leaving. These decisions are mainly influenced by personal circumstances and financial problems that students have. This was inferred in the following explanation given by the respondent:

> *Some personal reasons like money and so on but quite unfortunately the university can't afford you longer than a particular period. Then we say, sorry you have to go. So, ja, they pay for themselves. So I think when they stop, they decide to terminate their studies it is a huge decision for them. I think personal problems are one of the reasons.*

From the picture presented above, student attrition is still a challenge that the institution faces, widely perceived at times as being out of institutions' control. In the case of this institution, students pay for their studies and when they have financial challenges they decide to leave. This now leads us to the issue of availing and committing funds at national policy and institutional levels which is a critical area in terms of improving student retention and throughput. In this regard, one poses the question, what are the mechanisms in place to address this challenge?

The tension presented in this scenario is an obligatory requirement to complete the degree on the part of the student that has to do with time to completion. The finances that are limited or lacking that impact negatively on meeting this requirement, whilst the institution has a dual mandate of increasing access and ensuring that strategies in place are effective to meet the imperative objective of improving student throughput.

It is worth noting that in spite of this challenge the institution is doing well in terms of improving pass rates in this programme. The trend shows improved pass rates measured in terms of modules pass rates that translate to pass rates in the programme. To illustrate how the system and strategy used achieves this, Participant X observed, '*So this is how we experience passing rate. We are happy about the passing rate*'. Further on the trend is revealed in the absolute figures presented in the following statement made by the respondent,

> '*We deliver between 800 and 1 000 teachers per year who complete their BEd (Honours). So ja, we are quite happy that they are successful in their studies...I think nowadays the level exit for* first *year full-time students is bigger.*

This claim was based on student enrolment and graduation data Participant Y provided me with which reflected an incremental trend over the period 2008 to 2013 (Annexure B).

This picture depicts the institution's committed effort in improving student retention and throughput and achievements gained. However more needs to be done when one looks at the set targets in the NPHE and against the 20 000 students enrolled in the programme. Participant Y from the same unit confirmed that more needs to be done, in terms of addressing gaps in the system such as technology usage, the lecturers' level of knowledge of the technology and blending contact sessions. For instance a gap was identified in terms of the extent to which this technology is incorporated into the teaching methods and also weaknesses with respect to the lecturers' inadequate use of the technology due to limited knowledge of this technology. This is evident in the following statement by Participant Y:

> *I think that at this stage we are still in the process, we have moved very fast over the last* three *years from contact where we have facilitators delivering our programmes that were trained by lecturers, and also the lecturers ourselves as such we have different centres in the North West Province where we go to these centres and where we conduct our contact classes. So, I would say within the last* three *years we have moved very fast with this technology. So I think we are still adapting to the technology. So I think we are still learning the technology and, ja, perhaps*

> *not using it because of people that are not trained so well. What we do use it for is all our lecturers can use the interactive whiteboard to present a class but I think we will come to a specific stage where we would like to incorporate more of the technology.*

This picture attests to what Tinto (2006) observed that, though there have been some achievements in distance education, more still need to be done. Therefore more research is needed to improve upon students' use of available resources, and contact sessions which students are not using to the optimum level. This is evident in the following statement by Participant X:

> *Currently we have only two interactive whiteboards that we can run into parallel sessions. I think as we go along we will probably have* six *or* seven *at each centre where we can have* seven *parallel sessions and we can perhaps have more classes... So I think we are still in a process of getting there. We not yet in utopia, we not yet there where I think we want to be, I think, but we are moving towards that.*

Although the statistics provided showed progress made in increasing graduation rates and improving student retention, challenges experienced in monitoring student retention are explained below. However, from the data presented the trend shows improvement in throughput rates and positive strides towards meeting the set targets in the NPHE.

The interviewee expressed difficulties in monitoring students in distance education contexts. Part of the difficulty, according to him, is that students organise their learning activities and miss out on exams. Exam absence is a critical area that the institution identified and measures were put in place to address it. The participant explained this challenge in the following manner:

> *That is a difficult one in the open distance education learning model. Because what happened now, students enrol for April, so it is April, start in April. They don't write the exam in October, start writing exams in next April.*

To address this challenge letters are sent to students notifying them of the problem and providing further advice. The letter is aimed at providing some support to students in terms of making them aware of the challenge and implications if action is not taken sooner rather than later.

> *We say, 'we see you enrolled in April, you missed your* first *exam, you missed the* second *opportunity, you are busy making it difficult for you because you are on a full assessment level,*

> *is there something worrying you? How can we assist you? And we send out quite a number of questionnaires to students, to find out what are the problems and so on.*
>
> *To be honest it is very difficult to monitor open distance learning model and what is going on. So the first you realise that the second opportunity is gone, then we send a letter, an official letter. We say, 'listen, this is your last opportunity now you must use it'.*

Again the participant acknowledges this challenge which he views as a phenomenon not unique to South African distance education contexts but also experienced in other distance education programmes around the world. The scale of the challenge is seen to be complex, given the nature of student demographics and large numbers of students enrolled in distance education. This participant pointed out this through acknowledging his knowledge and experience of other distance education providers such as the Indira Gandhi University in India and the University of Arizona in Turkey.

> *But I am been honest, the open distance learning model is difficult to monitor. You can't follow each student. I wonder if you have heard of the University of Arizona in Turkey? They have about 1,5 million students on distance education. I visited the Indira Gandhi University in India, 1,2 million students. It is impossible to monitor each student.*

This reflection by the participant above highlights the difficulties and complexities in monitoring student retention in distance education. What was cited as a deep-seated cause of the challenge relates to the 'unfeasibility' of monitoring each student in the programme considering the scale and nature of distance education. The point made here needs to be further researched to understand the trend in distance education in terms of the correlation between the high demand (high student enrolments) for distance education and student retention on the one hand, and its impact on monitoring student retention practices, on the other hand. According to this participant, the realities of diverse contexts tend to be ignored at national policy level and practical solutions ought to be considered by the Ministry of Higher Education if higher education institutions have to make a meaningful impact. In this regard, he argued that there are high expectations and yet the realities are not considered such as the ever increasing numbers of students in distance education programmes and the impact this trend has on the capacity of higher education to absorb these numbers, as well as the implications for quality. The difficulty in monitoring students in distance education programmes mentioned by the participant has implications for determining whether the institution is meeting the targets set in the NPHE; however measures were put in place to support institutional efforts to meet this objective.

Through these measures the institution is able to improve its students' throughput rates. Alternative mechanisms should be enforced that are practical to cultivate practices that are realistic, such as the one the institution is employing of monitoring a group of students or a module instead of individual students. However, these should be tailor-made to suit the specific objectives of the institution taking into consideration institutional contexts, student backgrounds and demographics. This situation is clearly captured below in the response by the participant:

> *It is one of the problems of the Department of Education. They still think you can monitor each student. It is impossible! It is not possible. Can you imagine how many people you have to appoint to do that? So that's why we monitor a group and a module.*

This statement speaks to feasibility and capacity issues and ensuring that realistic practical mechanisms are enforced to desired goals and expectations. Students also have their expectations from the education they receive if they pay for it – this refers to student satisfaction. Their learning experiences and satisfaction with the quality of provision, as well as diverse talents and learning ought to be taken into consideration. Therefore, diverse strategies would yield real solutions through module monitoring and providing extra classes and support to those students in these modules providing a watertight model. This process is explained below:

> *If there is a problem in the BEd (Honours) Management, then now we say, 'we offer extra classes, if you have passed your module you don't have to attend it. But those who are in trouble, here is an extra opportunity to assist you'.*

The Participant expressed satisfaction in the model used which infuses diverse practical strategies to enrich the student experience in order to achieve desired outcomes in the form of increased student engagement, persistence, student satisfaction, and success.

4.4.15 How effective is the model/strategies?

The story of Institution B is one of success in improving success rates regardless of the challenges faced. In exploring the model the participants expressed satisfaction in the pass rates in the face of continued challenges experienced in monitoring throughput in the distance education programme. Therefore Participant X explained that the way they are dealing with this problem, involves monitor modules and not individual students. This reveals a tension in the system as the Green Paper for Post-School Education and Training proposes that higher education institutions should monitor the throughput rates per individual students. This tension was explored by Participant X in the interview. The point made here regarding the difficulties

and complexities in monitoring student retention in distance education that Participant X viewed in the light of increased enrolments trends in distance education due to its high demand, needs to be flagged for further research to interrogate the realities on the ground and how these influence retention trends and monitoring practices.

Overall the holistic approach of the model proved to be successful. The participants explored the strategies used to address student retention and throughput and data from the institutional portals, was later made available by Participant Y on their enrolment and graduation trends for the period 2008 – 2013. At the same time, student data was analysed against the interviews for verification and trend analysis. The documents analysed were guidelines on modules in the BEd (Honours), guidelines on examinations, and feedback questionnaires. These were useful in verification and evidence based analysis of the data.

The data supported the claim made by the participants as it showed an incremental trend in pass rates during this period. There is evidence of gradual direction towards meeting the set targets in the NPHE. This success was attributed to the nature of the model used which is flexible, student centred, unique, and holistic. At the same time supplementary measures are in place to close the gaps and to ensure a watertight approach is used.

The participants described quality delivery and effective student support as the underlying strategic imperatives in achieving improved student access, retention and success. The major concerns were the issues around quality improvement linked to support structures, proactively using multi-dimensional and supplementary techniques in building their models for institutional effectiveness, the transactional distance, and the limited research skills of students in the programme.

4.5 Across case analysis

An analysis of both cases revealed the following common themes that emerged as well as the similarities in the strategies used by the two institutions.

- Institutions' commitment at faculty level towards increasing access and improving throughput;
- Development of a unique ODL model tailor-made to meet specific academic needs of students;
- Student support mechanisms;
- Flexible, holistic approaches to open distance learning;

- Quality programme delivery and student success;
- Use of ICTs in teaching and learning;
- Blended learning;
- Student academic support – targeting and identifying at risk students;
- Application of various approaches and techniques as supplementary tools/instruments;
- Effective administrative systems to support teaching and learning, and communication strategies; and
- Quality assurance – benchmarking and best practice.

In terms of the strategies used the study found out that there were similarities in approaches aimed at bridging the transactional distance between the students and the lecturers. For instance, the underpinning principle of both institutions' ODL models relates to the application of various strategies tailor-made to meet students' academic needs and enhanced student-lecturer engagement in line with Moore's (1991) theory on increasing student-faculty engagement and student-centred teaching and learning methods (see chapter 2). These models were built around the vision of each institution and the rationale for using open distance learning in response to national policy imperatives such as redress, equity, transformation, and quality. The findings revealed similarities in both institutions' ODL models reflecting openness, uniqueness, flexible, student friendly systems and processes, the acknowledgement of diverse talents and different learning styles, encouragement of teacher-student engagement, self-directness, and quality assurance. Linked to these models, the study found that the commonalities in strategies used were the use of ICTs in teaching and learning, blended learning, student support, the identification of at-risk students, effective administrative systems, and student feedback. This was further elaborated on in the interviews with the participants from both institutions where they described their models and elaborated on the strategies used discussed in the following sections of the chapter. The holistic, integrated approaches translated into feasible measures to address the transactional distance.

An overarching thread consistent across cases is the institutions' commitment at faculty level towards increasing access and improving throughput, focusing on improving the quality of teacher education in South Africa. A shared expression by the people who were interviewed across the two institutions was that addressing teacher education is key to improving the quality of education in South Africa. In this regard, quality was viewed as the central philosophy around which the strategies for improving student retention and throughput were conceptualised. The

concerns around quality and quality assurance were found to be similar in both cases. The linkages between the concept quality and improvement of student retention and throughput are evidenced in both stories of the institutions. The common perception was that institutional efforts aimed at bringing about the desired change to tackle the quandary effectively, perhaps once and for all, can be achieved through addressing the root problem and by introducing practical strategies rather than simply scratching the surface. Therefore quality has a significant value in that direction impacting positively on student success and retention.

The participants expressed commitment by the institutions reflecting values upheld. A shared view was expressed by Participant X from Institution B:

> *In 1994, with the new South Africa, you will be aware of the fact that there were 85 000 teachers who were under-qualified. So, we had decided to become involved in distance education for teachers because we realised that it was impossible for them to go full-time into university, distance was a problem and so on and so forth. So we started ourselves in 1994 that was, with a* three-*year Diploma. At that time, it was called the BEd, not the BEd (Honours) in the late 1990s.*

In relation to main objective of the study, the findings revealed similarities in techniques used by the participating institutions in the study. These included: student support systems, use of ICTs, identification of at risk students, putting in place mechanisms to ensure quality of delivery, effective administrative support systems, blended methods of delivery. The 'quality delivery' of these distance education programmes was a central theme. This was evident in the following statements expressed by participant X:

> *... and what was very important to us is to deliver quality programmes because a lot of people still think that there is no quality in distance education... we are very strict on quality. In the beginning... we have* two *international audits. The* first *one was done by a university in the UK, the biggest one in Europe. And in 2011by a team from Australia, Belgium, UK and Uganda.*

The picture presented here is of international standards and benchmarking practice in keeping with meeting international standards to ensure that there is quality of delivery. This practice was found to be a common practice by both institutions reflecting a similar pattern in keeping with international best practice. Participant X further stated that:

> *And then we have the HEQC Audit where they described our model as the model for the future for distance education in South Africa, that's on paper...* three *different people from* three *different universities, lecturers, professors, senior professors, and look at the content of our material. Quality that is our mission to help teachers get upgraded qualifications.*

Quality and student success were the fundamental *'principles'* for conceptualising the development of the models. As already explained, quality was viewed in a similar way during the interviews with the participants. For instance, Participant X from institution B expressed a similar view to that of Participant A from institution A, using words such as '*low quality*', '*reforming*' and the statement '*Quality became the main challenge necessitating the review of the "old model" and a risk analysis that informed strategic planning service going forward*' to emphasise renewed strategies and innovation.

Again similar views were emphasised regarding the strategies developed to address quality issues. They strongly felt that strengthening this area would yield the desired outcomes with respect to increased student access and throughput. Built-in mechanisms are put in place and followed consistently to ensure that quality of delivery is enhanced. Similar patterns emerged in the data revealing repetitive mention of terms and the concept quality and how quality is managed within these institutions. In the case of institution A, Participant A noted, '*We provide them with good quality well developed thing'* and a similar view is evident in the following response from Participant X from institution B, '*As I said we are very strict on quality... Quality, ja, that is our mission and this is to help teachers get upgraded qualifications*'.

In other words quality cannot be compromised in the process of increasing access. Programmes that do not meet appropriate standards were viewed as tarnishing the institutions' reputation and that could seriously risk increasing access in the long term. Programme reviews are ongoing to ensure that quality is maintained and monitoring mechanisms are in place. This view was shared in both stories with accounts of reforming the 'old models' and developing strategic models that are effective supported by quality delivery of programmes.

A similar theme across the cases relates to student support that emerged as a core strategic support initiative in providing quality programmes, thereby improving student retention and throughput, nested within the notion of meeting students' specific academic needs, in a developing context (South Africa). This concept shaped the thinking and approaches in improving student retention and throughput. For instance, in the story of institution A, an effective student support structure was identified as the main tenet, hence, their approach to

address this was through utilising a '*holistic approach*' taking into account programme structure, programme delivery, administrative issues, etc committing finances and resources including expertise, technology (electronic and print media) to ensure that effective academic support is provided to students. This can be seen in the following statement by participant A:

> *What are the cross-references with regard to each module? So that it is a coherent, integrated programme that we develop for the students ...long before the students start.*

This approach to students' academic support is linked to the notion of coherence and integration.

He further emphasised that the academic content should be aligned academically and didactically, and streamlined to students' specific environment hence planning is so important. This suggests that the process is an integrated one with all aspects intertwined such as the content of the programme, the packaging, which he termed '*desktop publishing*', the learning guides, and tutorial letters, learning material, all of which are underpinned by a '*quality assurance approach and techniques*'. Participant A described the impact of 'desktop publishing' in providing the needed student support as follows:

> *... Now just to give you an example, a very simple example, if you look at our learning guides, the print, the font that we use is larger than the normal print at the university because the people that we work with are much older... Those are the things. What you need to do to raise your throughput rate, to decrease your dropout rate?*

Desktop publishing takes into considering the technical stuff such as 'layout', the 'design 'including icons used, the space in between letters or words so that 'it is not too text dense'. Quality being the '*underlying philosophy*' is central to whatever means and interventions used in that regard. Quantitatively it would have to do with what is in place but qualitatively it is about '*what is in place and the quality measures to make a difference and enrich learners' learning experiences for success*'. Participant A emphasised this saying:

> *... So it is a quality assurance approach that we have... It is in the underpinning philosophy of everything, whether it is how you construct the SMS that you send to the student or whether it is the module that you develop... before you develop the programme, that is, the throughput and dropout rate too.*

From the above citations, themes such as programme '*planning*', '*delivery model*' that supports '*managerial, logistical, structural, and systems*', supports the point made of a '*holistic*', '*coherent and integrated*' approach implying that the model incorporates all activities, assumptions, actions and practices that support planning, design and development of the programme, programme delivery etc. nested in institutional ethos and principles based on a quality assurance driven approach. For instance, in terms of administrative support the participant gave me a vivid description of this functional area. This support system is built on connected internal activities and processes including '*text stylistics and desktop publishing, communication, modules and learning cycles, learning material (text and electronic)/ content programming, exams and all relevant information dissemination, being conducted through a user-friendly and supportive environment to maximise student retention and throughput rates*'. In this way, the model allows for students to navigate the system and make use of available opportunities and options through '*dovetailing administration and academics so that the students' gets a seamless high quality service...Seamless high quality!*' This was pointed out by participant A citing learning materials received by students in block sessions that reveal the purposeful and strategic efforts towards achieving student success. He explained this process as follows:

> *... in block 1 they receive module 1, module 2, tutorial letter, tutorial letter 1 the administrative book, a CD, all the writing material like writing pads and envelopes and all that and the covers of assignments.*

The interconnection is made between this process and communication between the students and the lecturers when delivering the academic content to guide them. To illustrate this, the participant said:

> *...these are your* two *assignments that you need to submit and talk about all that stuff". In addition, SMS technology is used to further communicate with students and to bridge gaps and different worlds of students and institutional dynamics.*

This supports Moore's (1991) theory on student engagement to bridge the 'transactional distance' between the learners and lecturers and to strengthen learner engagement academically and to foster a sense of belonging facilitated through communication. This is supported by the Participant A stating,

> *...This is the broad structure for the* six *months. In between, the students receive almost 100 SMSs. We use SMS technology expenses. We sent out approximately 1,2 million SMSs per*

> *year to our students. We communicate with them continuously to close the gap because it creates a closeness that is part of the student support thing.*

This shows that the approach is coherent when considering the programme structure allowing information flow and exchange between the students and the faculty to close the gap.
A similar pattern emerged from institution B regarding student support however focusing on students struggling with a module such as the ACE. For instance, Participant X explained,

> *"I think the most challenging factor and most of the students struggle with that is the passing rate in the research module".*

To which he further explained that the support given involves

> *"…arranging extra classes, extra information that we sent through to the students through SMSes and important information… But we also do is that we look at the exam results firstly of all the modules and secondly of the tuition centres (learning centres). All the modules which have a passing rate of less than 60% we arrange extra-tuition classes, and if there is a problem with a specific study centre then we send our lecturers - our full-time appointed lecturers to that centre, to do some extra-classes, and we arrange extra whiteboards and so on. That is how we deal with those students who struggle with the module".*

This shows that there are similar trends reflecting attempts at the support provided to students to assist them in their studies. Various strategies are used to meet their academic needs including enhanced knowledge and understanding of subject content, administrative procedures, systems and processes, and problem solving skills. This could be at a systems level or module level as in the case of institution B.

Furthermore there are similarities revealed in administrative processes that were discussed by participant X from institution B. In his reflection on administrative systems and processes he brought out the similarities in practices between the two institutions with regards to using the call centres and tutors or what he referred to as the 'open learning group' and 'programme coordinators' as in the case of institution A.

> *"We use the facilitators and I think we have a number of modern call centres where students can call in every time, we put through to the lecturers. If it is an academic question or it is*

> *administrative we handle it from here. To run this whole business we use our open learning group, they are our administrative collaborators. They support us with the marketing. The moment a student enrols with us the application is sent through to the campus and it is approved and then each student form we get. I think UP is the same".*

Furthermore another similar trend in both cases in the area of learner support is how it is strengthened through mediating tools such as the use of information and communication technologies (ICTs) and blended learning. As noted by Participant A:

> *The CD is also a tool for bridging the gap using technology in that students have flexible access to learning material and tutorial letters at their own convenient time considering that most of the students are adult workers (educators) and live quite far off from the campus. So they can access the CD (electronic library) with all the relevant information they need.*

According to the participant in order to accomplish this, there is a need for an effective learner support system and mechanisms rooted in knowledge and understanding of the students' profiles, their academic needs and their '*technology profile*'. In that regard, he shared his insights into the research on the students' profiles, their IT skills and usage. To advance this, students' mobile cellphones information, Internet access and financial support (where necessary), were investigated to '*target and identify at risk students*'. In addition, the use of blended approaches in the teaching and learning has contributed towards closing the gap between the learner and the teacher. This refers to the use of ICTs whereby mobile technology, Internet and SMS technology are used together with contact sessions organised at certain intervals during the academic year. In explicating, participant A said, '*We use SMSs, we use the learning guide itself. We use face-to-face. So there is a mixed delivery that we do*'.

In the case of institution B, the participants explained the use of the interactive white board which was described as interactive.

> *"…we must follow the technology that was developing in the world. We were the 1st university to introduce interactive contact classes. Perhaps you know it. We use the smart board… Interactive means that the student can ask questions at anytime with the lecturer from the centres. They can stop us and say, 'look I don't understand'…"*

At the same time, there is the interjection of SMS technology during this broadcast session.

> *You have here a whiteboard. Every centre can write on the whiteboard, so you can give them for example a problem and they can all do together and you can see this thing and if they afraid to ask questions, they can send an SMS, it is running on the screen next the presenter.*

The use of moodle was also mentioned by participant X from this institution as follows:

> *"And the other important thing is that if you miss a class, the moment when the lecturer is finished with the presentation, we put it immediately on Moodle on the internet. That means you can go after that and watch it as many times as you want. So that is at this stage our main model that we use".*

What emerged from the above picture is a similar trend with regards to the use of ICTs in enhancing teaching and learning and student support to bridge the transactional distance.

The participants from both institutions expressed satisfaction in the models in addressing these challenges which they attributed to the '*holistic approach*' to students' academic support, planning and the structuring of the models in line with the institution's mission and vision. Participant A expressed this by stating that:

> *What throughput rate will be determined by the initial planning of your business programme? What delivery model are you going to use? How are you going to structure your* model? *This is managerial, logistical, structural, systems.*

This view on success was shared by Participant B (from the same distance unit) whom Participant A suggested I interview for details and verification of the throughput rates in their distance education programme stating that, '*Our throughput rate is actually encouraging and I think it would be connected with the strategies that we have put in place and support structures for our students*'. This affirmed that effective support structures and systems informed by research and blended learning methods (ICTs and contact sessions) have added value.

To a large extent the study revealed that measuring student retention is complex largely due to student dynamics, environmental factors and capacity challenges, impacting on institutional operations and systems subjected to constant change (not stable). This is evident in the following response provided by participant X: '*It is extremely difficult in our* model *of distance education to follow the throughput rates in our programme*'. This view was shared by Participant B when she indicated that '*monitoring that profile is because the profile is unstable, it keeps changing*'. Whilst Participant Y's perspective highlighted that in the context of distance education, monitoring student

retention it is not a 'seamless' and feasible practice, stating: 'what is a difficult one in the open distance education learning model... Because... students enrol for April, they start in April. They don't write the exam in October, start writing exams in next April'.

What emerges here is a scenario proving that not only is the student profile constantly changing, as suggested by participant B, but there is inconsistency in their enrolment patterns and learning practices, mainly resulting from personal circumstances. This point was further emphasised by participant X:

> *It is the exam they didn't write for whatever reason it could be a funeral in the family. But I am been honest, the open distance learning model is difficult to monitor. You can't follow each student. I wonder if you have heard of the University of Arizona? They have about 1,5 million students on distance education.*

At the same time, benchmarking through research and quality assurance measures has aligned their practices to international best practice models. Again, this links with the '*uniqueness*' of the models of the institutions, '*flexibility*' and a conducive learning environment to enrich learners' learning experiences. The fact that these models were tailor-made to meet students' academic needs within the developing contexts has had a positive trajectory on the success of these institutions in meeting this imperative objective. Other techniques were also applied that tie in with effective 'holistic approaches' such as assessment measures, feedback and tutor evaluation to ensure that comprehensive strategic measures are in place. All these measures contributed to enhancing the retention and throughput rates.

The picture presented here is that of mostly similar strategies with minor variations reflected in terms of monitoring student retention practices with institution A evaluating students' performances whilst institution B evaluating modules and groups of students within modules. Another difference was evident in institution B's reliance on the smart board technology and comparatively lesser face-to-face contact with students. What should be noted in this light is the 'uniqueness' of the models that embrace the difference due to being tailor-made to meet the specific needs of their students within their programmes.

4.6 Conclusion

Overall the strategies used proved to be effective and successful though further engagement is recommended and discussed in Chapter 5. In general, the findings revealed similar patterns of

experiences of the participants in tackling the student retention and throughput in their programmes. As noted earlier, for the purpose of this study, which attempts at investigating the extent to which distance education is meeting the set targets in the NPHE focusing on the BEd (Honours) in Education Management, a multiple-case study was conducted through in-depth interviews to gain insights into the experiences of those managing these programmes, the challenges, and the effectiveness of the strategies they use to address student retention and throughput. Two main areas: analysis of enrolment and graduation patterns and trends in line with NPHE set targets and the effectiveness of strategies employed to improve student retention, informed this study to address the main research questions. In this chapter data was analysed based mainly on the interviews with the participants and supported by evidence from documentation and other sources of information. To address the research questions in the study, major themes emerging from the data were synthesised. The main research question is "To what extent have universities succeeded in increasing their throughput and graduation trends to meet the targets set in the NCHE?" and the sub-research questions are:

1. What strategies were developed by the two institutions to better the throughput and retention rates in the programmes?

2. What were the trends in the throughput and retention rates in the B Ed (Hons) programmes in the three institutions for the period 2001-2010?

3. Did the strategies developed succeed in bringing the institutions closer to the benchmarks set in the NPHE?

The major themes that emerged across cases to address these research questions are quality assurance, improving access, quality programme delivery through ODL, strategies to bridge the transactional distance, use of ICTs, blended methods of delivery, student support-identification of at risk students, retention and throughput. Chapter 5 will discuss the research findings in light of these research questions, the theoretical framework, and the existing literature to consider the degree of commonalities and contrasts between the literature and the models presented in relation to these themes and alignment to international best practice models. Recommendations are considered based on the findings to contribute towards theory development and to inform policy and for further research.

Chapter 5

Research Findings

5.1 Introduction

The purpose of this study was to investigate the experiences of those involved in managing distance education programmes in South Africa with a view to understanding the strategies they use and to determine the effectiveness of these strategies aimed at improving student retention and throughput to meet set benchmarks in the NPHE (2001) (discussed in Chapter 2). The research was conducted through a multiple case study design based on in-depth interviews with participants who are experts in the field of distance education, as well as student data, institutional documentation, field notes and observation. This chapter presents the findings of the study by integrating the theoretical framework, the literature reviewed and the research data obtained regarding emerging themes, patterns or trends with respect to improving student retention and throughput. The chapter also reviews the gains made in improving student retention and outlines the implications of the findings for researchers, institutional managers, and role players in the field of distance education, as well as theory development. It concludes with recommendations for further research.

In Chapter 4 the research data were discussed, based mainly on the interviews with the participants and supported by evidence from documentation and other sources of information. The major themes were synthesised to address the research questions in the study. The research questions that framed the study are:

1. What strategies were developed by the two institutions to better the throughput and retention rates in the programmes?

2. What were the trends in the throughput and retention rates in the B Ed (Honours) programmes in the two institutions for the period 2001-2010?

3. Did the strategies developed succeed in bringing the institutions closer to the benchmarks set in the NPHE?

In an attempt at answering these research questions, this discussion of the findings in this chapter is led through determining how the narratives and the themes, trends and patterns that emerged, align with or contradict the existing literature on improving student retention and throughput in distance education.

5.2 Findings of study

In relation to main objectives of the study, the findings revealed similarities in techniques used by the participating institutions in the study to address student retention and throughput. The common themes that emerged across the cases were quality assurance, improving access, quality programme delivery through ODL, strategies to bridge the transactional distance, use of ICTs, blended methods of delivery, student support-identification of at risk students, retention and throughput. The literature and the theoretical framework discussed in Chapter 2 provided a lens to understand these themes and a reference point based on international best practice models.

In that regard, I will consider the degree of commonalities and contrasts between the literature and the models presented in relation to these themes. I would like to start this discussion by exploring the theme of the transactional distance between the students and the lecturer as it explicitly emerged from the theoretical framework, the literature and from the conversations with the participants in this study, as the critical issue in improving student retention and throughput in distance education contexts. In spite of the slight inconsistencies across cases in views from the participants regarding the major challenge experienced, evident in Participant A from institution A, citing the transactional distance and Participant X from Institution B, indicating that the level of knowledge and understanding of research by students as the major challenges experienced; the transactional distance emerged consistently as the critical challenge across cases. In this regard, the findings illuminated that the models of the participating institutions have to a large extent been conceptualised around strategies prioritised to bridge the transactional distance. A discussion of these strategies follows immediately to address the research question.

5.2.1 The strategies used to bridge the transactional distance

Common trends were found in the literature defining distance education as a concept that is characterised by learning that takes place whereby the student and lecturer are separated in 'place' and 'time' (Kerka 1996). Learners are seen as 'physically removed' and there is no or limited face-to-face interaction between the lecturer and the learner, described as the 'transactional distance' by Moore (1991) which is a special relationship that develops between the teacher and the student due to the distance between them. He further held that 'Distance education is not simply a geographical concept. It is a concept describing the universe of lecturer-student relationships that exist when learners and instructors are separated by space and

or by time. This universe of relationships can be ordered into a typology that is shaped around the most elementary constructs of the field – namely, the structure of instructional programmes, the interaction between learners and teachers, and the nature and degree of self-directness of the learner' (Moore 1991).

The issue is that learners involved in less structured learning programmes that allow for more interaction between lecturers and learners are likely to be not affected by the transactional distance (Moore 1991). In situations where learners are physically removed in terms of time and place, the transactional distance for similar programmes will be greater. In South Africa and elsewhere there are attempts at developing less structured and more interactive learning activities and technologies to bring the lecturer and the student closer, thus, bridging the transactional distance. In this study, it was acknowledged that the transactional distance was the major challenge resulting in the development of models focusing on bridging this gap. Beginning from the conceptualization of the models the issue of the transactional distance was taken into account. For instance, participant A from institution A elaborated on the planning

> *"What throughput rate will be determined by the initial planning of your business programme? What delivery model are you going to use? How are you going to structure your Model?"*

This process was followed by a detailed explanation from the same participant of the programme structure, flexible integrated systems allowing for students easy access and navigation of the programme and the system.

> *"The 2nd thing that you need to do extra-ordinary well is how you develop your programme. That means, how is your programme structured? What is the purpose of the programme? What are the outcomes of the programmes? What is the underpinning philosophy of the programme? How are you going to put the modules together in a way that each Modules purpose will serve the purpose of the programme and the outcomes of each module in the programme is speaking to the outcomes of the programme? What are the cross-references with regard to each module?*

The trend shows consistency with the theoretical framework explained above. The practice and models developed support this alignment with Moore's (1991) theory on implementing less

structured programmes and moving away from more structured programmes to effect student success.

> *"So that it is a coherent, integrated programme that we develop for the students that is long before the students start. It is how we construct the academic* content in *such a way that is not just academically sound but also didactically and how it speaks to the students in their specific environment".*

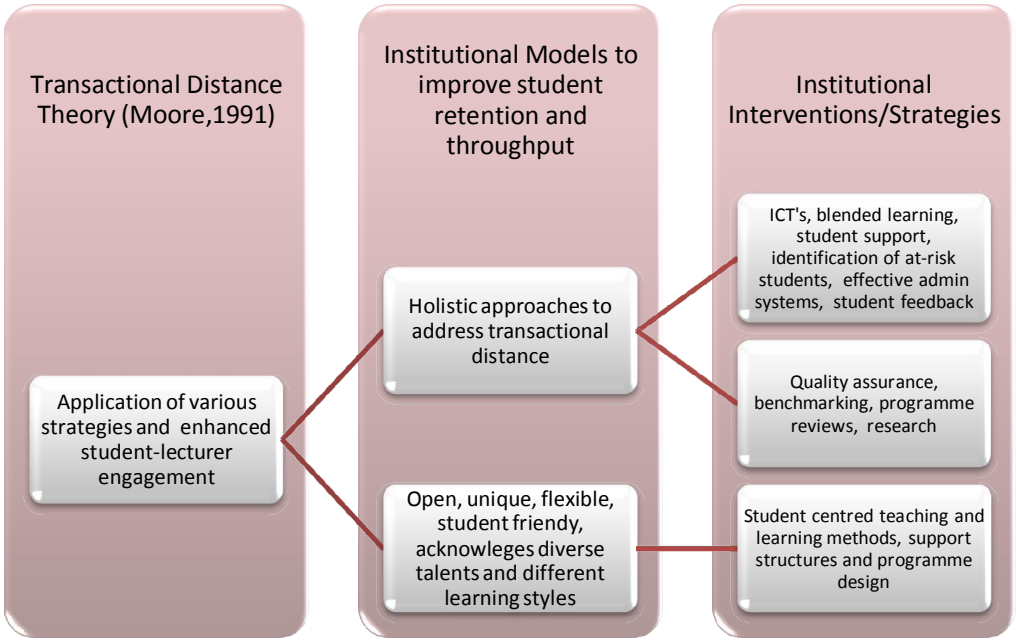
Moore (1991) observed that the more the programme is structured, the lesser the interaction and the less the programme is structured, the more the interaction. During the conversations with the participants it was explicitly evident that the transactional distance impacted on teaching and learning and that effort was made towards closing the gap. They expressed that understandings of the dynamics surrounding the distance and its ramifications, the student profiles and backgrounds including their IT skills, knowledge and access to the Internet informed the conceptualisation of the models. This process involves taking action in line with these understandings and making decisions regarding the approach, systems and processes, and student support mechanisms.

In addition it was revealed that the transactional distance between the students and the lecturers was a common barrier experienced in both cases. The participants explained that it could be an impediment to student success if not managed well or effective strategies are not implemented to address this major challenge. Three major themes emerged categorised as i) the transactional distance, ii) the research skills and background of students, and iii) inadequate Internet access as the primary barriers among others to student success that are interlinked. To address this, the participants consistently expressed the implementation of 'holistic' or coherent and integrated approaches to student support. This approach is echoed in the literature reviewed and discussed in Chapter 2. To support this strategy Akoojee and Nkomo (2007) suggest the implementation of "a holistic quality assurance framework to address access issues once and for all".

Where there is a likelihood of weaknesses or gaps in the system, the integration of proactive interventions were suggested to strengthen student support. For instance, the participants in both cases provided evidence that their models based on holistic approaches have contributed to success in improving student retention and throughput rates in their programmes (see Figure 5.1). Figure 5.1 illustrates the alignment between Moore's (1991) transactional distance theory

and the institutions' models and strategies. It highlights the practice of applying multiple strategies by the institutions that are consistent with the notion of application of various strategies to enhance student-lecturer engagement (Moore, 1991). Therefore a variety of techniques as supplementary measures discussed later in the chapter were supported in both cases to close any gaps and to enforce student support.

Figure 5.1 Institutional models to address the transactional distance



In a similar vein, there are potential benefits to students and the institution as Moore (2006) suggested. Based on their experiences, the participants viewed holistic approaches as having the benefit of enhancing student-lecturer engagement. Enhancing student engagement and interaction with lecturers (Moore 1991), through student-centred methods as opposed to lecturer-mediated instruction, resulted in improved student experiences and satisfaction in programme delivery. The literature points to the benefits of applying multiple strategies. These include, amongst others; professional development of teachers and resources. It is recommended that these areas are reviewed and should be prioritized as they are critical and central in the education system. Kriek and Grayson (2009:186) argue that *"certainly short-term measures are insufficient in addressing these issues, rather holistic long-term professional development of teachers including lifelong learning, reflective practice, programmes to develop teachers' content knowledge and pedagogical content knowledge of learning areas, collaboration with peers, support structures for teachers, and capacity building of teachers"* are necessary.

In addition, other interventions drawn on the Access to Success (2010) findings of a survey on *'parallel institutional surveys on access and retention in higher education conducted across a sample of 126 African and 19 European countries',* aligned to the Bologna protocol include the following:

- Increasing funding;
- changing funding of education towards an outcomes based system;
- boosting student support systems;
- ensuring the supply of pre-entry information and preparation;
- proper induction and transition support;
- curriculum development;
- social engagement, through establishing communities of learning (Tinto 2004);
- student support; and
- data and monitoring (Thomas et al. 2010).

In addition evident in the literature reviewed are various interventions that are applied by governments and states on a global scale that address specific needs within unique contexts with regards to distance education and student success.

In Africa, these interventions have been extended to include, amongst others; *"adopting non-discriminatory policy, adopting flexible admission policies, offering special programmes, visits to potential students, offering flexible learning paths, recognition of prior learning and provision of financial services to students. Other African countries have resorted to implementing affirmative action, quota, reservations, distance learning, and student financing schemes to address the challenges of increasing or widening access to higher educationSome of these strategies were evident in the practices of the participating institutions".*

However, these are policy issues when one looks at the bigger picture providing an understanding of the scale of the challenge regarding student and retention internationally and for benchmarking purposes. For the purposes of this study which focused on the institution level, overwhelmingly, evident in the literature reviewed is the role played by 'holistic', interactive approaches to teaching and learning based on student-centred approaches. These are linked to Moore (2005) theory on active engagement echoed by Tinto (2006) and Thomas (2009) that 'active engagement of learners' is "the pillar of student success, retention and throughput". These dimensions explored below are again evident in the practices of the institutions in this study.

These dimensions and the literature I reviewed, illuminate important lessons. I learnt in the light of this that enhanced student engagement and interaction in distance education result in heighted student experiences and satisfaction. In this process, the benefits for the students include:

- Encouragement and motivation to learn;
- Cost benefits and returns in investments to their education;
- Problem solving skills and critical thinking skills are strengthened;
- Students' knowledge horizons are expanded in relation to intellectual growth and career advancement; and
- Students attain the required professional competencies and qualifications.

The institution has the advantage of reducing student attrition rates, as it creates a space for students to make use of the opportunities as they navigate their way in the learning process.

The study also found that student-centred approaches were practised in teaching and learning processes to facilitate further interaction between the students and the lecturers. This is another strategy Moore (1991) acknowledges, for its usefulness and effectiveness, to bridge the transactional distance. The level and the degree of interaction between the lecturer and the student are often determined by the teaching strategy employed to bridge the distance that exists between them. Lecturer-student interaction in distance education is the fundamental variable Moore (1991) and the 'transactional distance' is determined by the levels of engagement and the outcome of engagement between the students and the lecturers.

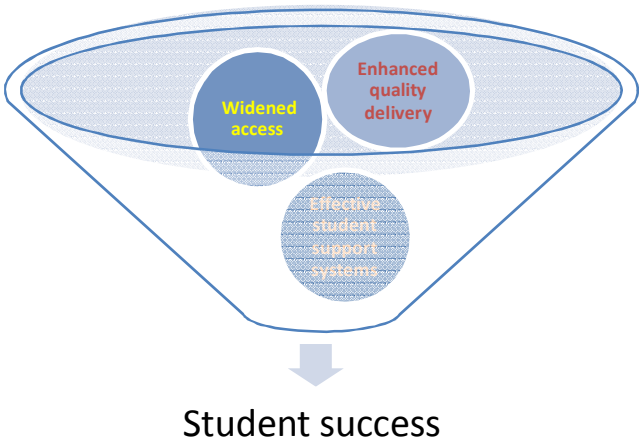
The findings revealed that student-centred approaches allowed flexibility within the system. In this regard, the participants in both cases described the models as 'open' and 'unique', accommodating students' diverse academic needs and giving space to tap into their diverse talents and different styles of learning. In this way students were able to manage their own studies independently whilst taking advantage of the support services offered and making use of opportunities to engage further. This is consistent with Moore's theory on self-directedness of the student in the learning process.

What I learnt is that student-centred approaches have an advantage of supporting students by focusing on their academic needs and subsequently reducing student attrition rates and improving access and throughput rates. Again this attests to Moore's (1991) theory whereby programme structure allows greater flexibility. For instance, I found out that the system allows

learners flexible options in terms of how to structure their own learning and manage their own personal schedules or workload etc. without affecting their 'time to task' and 'time to completion' in their studies. In addition, with regard to flexibility in time and space students are accorded options to learn whenever and wherever they are in the learning process. These approaches are replicable and they elicit openness in programme delivery, and are grounded in contextual settings of students in addressing their specific needs and enhancing their learning experiences.

The models of the participating institutions in this study were designed along holistic approaches to improving student retention and throughput. The findings reveal that the institutions adopted this approach mainly to address any gaps in the system and to strengthen student support systems. Basically the application of various techniques within a nested approach was considered to be effective in conceptualising the models and it was found that their practices were consistent with the literature reviewed and the theoretical framework.

Figure 5.2: ODL model of both institutions



The institutions' models are built on three fundamental principles for student success. These principles, illustrated in Figure 5.2 above, are 'enhanced quality delivery', 'widened access' and 'effective student support systems'. These centralised concepts recurred as participants elaborated further on the models, emphasising the importance of integrated processes. Ensuring that there are interconnecting processes is crucial. To highlight this, the participant from Institution A emphasised the importance of '*dovetailing administration and academics so that the students gets a seamless high quality service...Seamless high quality!*' In this regard, it is extremely important to dovetail. For instance, the implementation of proper administrative support structures is linked

to student support services. Thus, it is vital to ensure that learning material reaches students on time to support them academically and enable them to submit assignments on time and get timely feedback. In this regard, communication is crucial and is facilitated through SMSs and tutorial letters to guide students in their learning. This is supported by the three fundamental variables underpinned by the theoretical framework namely; dialogue, structure and learner autonomy (Moore, 1991:23). In this regard, Moore (1991) recommends that dialogue should be directed towards an enhanced understanding of the students (p.24). To which the institutions in this study have demonstrated that communication strategies are fashioned in a manner that is of the students' advantage allowing greater options in accessing information, study material and correspondence using SMS technology and tutorial letters.

Therefore the relationship between the administrative and academic support system is interlinked and built around a student-centred model that is 'open', 'holistic' and 'flexible', evident in how and when students enrol and decide when they want to sit for exams or not as mentioned earlier. This discussion of integrated approaches is led by a discussion of the use of Information and Communication Technologies (ICTs) highlighted in the literature reviewed and the case studies followed by other strategies.

To elaborate more, the literature points to the advantages of using Synchronous and Asynchronous communication technology in teaching and learning in ODL environments. Therefore the practice of the institutions was found to be consistent with the literature reviewed and the benefits for the students and the institution correlate with the literature as discussed in Chapter 2. For instance, the literature points to the advantages of asynchronous communication technology as being *"flexible in that students can access course material at any time; fostering a culture of self-reflection allowing students to relate ideas to their own working environments; lending itself to a situated learning context that is cost effective"* (Berge 2000, Li, Finley, Pitts & Guo 2011) a view that was shared by participant X from institution B during the interview when he explained that interactive whiteboards are easily accessible to their students and actually preferred by the BEd (Honours) students for their interactive nature and they don't see the need to attend contact sessions unless necessary. Again, he emphasized the success rates and improvement in throughput due to the implementation of the interactive white board technology of course supported by other measures in place. This is finding is further discussed later.

Debates in recent years are centred on critical engagement and new understandings of the concept of transactional distance in distance education, and space for new initiatives and strategies such as communication media or Information Communication Technologies (ICT), blended learning and other interventions aimed at improving student experience. This is in line with what Moore (1991) refers to as the communications media. In that light, Moore (1991) recommends highly interactive *"electronic teleconference media especially personal computers, and audio conference media"* (p.25) as these have the advantage of bridging the transactional distance (Moore 1991). The findings of the study show that there is an increased use of the ICTs by both institution aimed at bridging the transactional distance. This practice therefore is consistent with the theory espoused by Moore (1991). This practice again was consistent with the literature reviewed.

The literature points to booming enrolment in online higher education as a result of the introduction of ICTs (Sawahel 2013; Allen & Seaman 2011) and countries across the globe are 'adopting e-learning as a way to meet the strong demand for higher education – a demand they simply cannot meet with traditional campuses and programmes'. The advancement of technology in education is changing the way pedagogy is practised and new methods are mushrooming. Noteworthy is the use of these technologies to improve student retention and throughput in developing contexts. Most universities are moving towards online learning to meet this global demand for distance education and the trend shows blending of modes of delivery. These techniques are not unique to distance education institutions as some contactinstitutions have moved in the direction of using distance learning methods, mainly for support to students. It is evident that traditional (contact) institutions are now implementing e-learning as student support systems in their programmes (including the participating institutions). In such cases distance learning units established within these contactinstitutions, with students enrolled in distance learning programmes, supports a shift in higher education towards e-learning and blended approaches as support mechanisms to improve success rates of learners.

The findings revealed that mediating tools such as Information and Communication Technologies (ICTs) and blended learning are used to support teaching and learning. Research shows technological advancement in the use of common resources to support teaching and learning in these environments including web 2.0, multimedia, simulations, mobile learning, smart boards and Internet teaching resources, 'discussion forums, chat, file sharing, video conferencing, e-portfolios, weblogs and wikis' (Delgaard 2006), desktop and laptop computers,

Learning Management Systems, mobile and wireless tools including mobile phones, email, digital camera, and software (OER Africa). In the virtual learning environments, e-learning applications include blackboards, WebCT and Moodle. Proponents of online learning share similar views purporting the effectiveness of using online learning for various reasons including: 1) Time and space flexibility; 2) Potential to reach a global audience; 3) No concern about compatibility of computer equipment and operating systems; 4) Quick development time, compared to videos and CD-ROMs; 5) Easy adapting of content, as well as archival capabilities; and; 6) Usually lower development and operating costs (O'Neil 2006; Dalsgaard 2006).

The participating institutions in this study employ Moodle, CD-ROMs, mobile technology, video conferencing, computers, e-mails, SMSs, and specialised software. This is an indication of practices consistent with international best practice models in the literature reviewed. To support this it was evident in institution B's story that the use of interactive whiteboards proved to be very effective as a strategy to address the transactional distance. This was elaborated by the interviewed people from the institution evident in the following statement describing the interactive whiteboards by participant X:

> *"The lecturer is here in the studio or his office and doing a broadcast to all these centres. So we put up white boards at least two at the centres. So what happens is that we only use now half the number of facilitators. The lecturer is doing the broadcasting at the centre and after that the facilitator carries on and uses more information needed whatsoever. So the whiteboard thing is an interesting thing".*

As explained earlier, the benefits of the whiteboards to the students were elaborated on and by the same participant demonstrating the usefulness of using this technology in distance education environments. He explained as follows:

> *"Only 18% attend contact sessions regularly. The BEd (Honours) class is not such regular attendants of contact classes, more of the NPDE students, because they want to attend classes one to one. So we asked the students why? They said the study material is so interactive they don't need to go to a contact class - so they can study on their own".*

To a large extent this illuminates the importance of ICTs in ODL contexts and how students make use of the technology in a self-directed way. This also shows that students in this

environment feel a sense of belonging brought about by the closure of the transactional distance and are confident in the technology used in ensuring that the gap is narrowed.

Conway (2003) recommended the application of the seven principles of good practice in online education drawn from Chickering and Gamson's (1991) review of '50 years of research on the way teachers teach and students learn'. These principles would be useful if incorporated into distance learning (. These are those that: 1) Encourage student-faculty contact; 2) Encourage co-operation among students; 3) Encourage active learning; 4) Give prompt feedback; 5) Emphasise time on task; 6) Communicate high expectations; and 7) Respect diverse talents and ways of learning (Chickering & Gamson 1991). Again there are similarities between these principles and the practices of the participants as discussed in the chapter. For instance, earlier I mentioned the application of student-centred approaches and enhanced student engagement to facilitate student-faculty contact, active learning or independent learning, co-operation among students, communicating high expectations, time on task, prompt feedback, and acknowledgement of diverse talents and ways of learning.

In addition to synchronous and asynchronous (ICTs) there is the need to blend in contact modes of learning to ensure a holistic approach to improving student retention and throughput. This line of thought is based on reflections on realities of the African student's context and sense of agency, and resources. Much research in this area embodies northern (developed country) models which are appropriate for developing countries (Subotzky and Prinsloo 2011). Findings from this study support the literature that argues that for strategies to be effective there is a need for the development and implementation of African models that are reflective of African realities. The literature attests to the evidence presented by the participants grounded in understandings of the contexts within which the learning is taking place, student profiles and backgrounds. In order to achieve this objective, participants recommended the development of a unique ODL model and framework for building a sustainable retention strategy that would tackle challenges associated with student attrition, taking into consideration developing contexts.

For instance, though ICT models are effective in developed contexts however, there is a body of evidence pointing to the shortcomings of their application within developing contexts as ICTs have not always penetrated rural areas. In addition, information technology knowledge and access to the Internet for students has remained a challenge, considering that the majority of students are based in rural areas and some are of the older generation who are upgrading their

qualifications. These developments point to inconsistencies in the literature and the perspectives of the participants. This links with the theme 'inadequate Internet access' seen in the arrangements made by the academic and administrative staff to ensure that alternative means and resources are made available to students in dire need of Internet access but who are facing challenges in that regard. These include students in the rural areas and those who have limited IT skills or do not have personal computers. Therefore institutions in developing contexts are faced with a dual challenge of improving distance education and still relying on print media and correspondence and to a large extent blending of contact sessions.

Therefore the lessons drawn from these developments is that 'traditional' notions or commonly held views of using ICTs as a 'one-size-fits-all' approach to support students in developing contexts, is problematic and further research is recommended. From the participants' perspectives, reliance on ICTs was not an effective way of addressing the transactional distance in the South African distance education context due to the limitation in Internet access by students especially those in the rural areas who constitute the majority of learners in these programmes. This highlighted a contradiction with traditional theories on ICTs. The difference emanates from the uniqueness and different contexts between the developed and developing countries, taking into account variables such as technological advancement, socio-economic status, infrastructural advancement, technology accessibility, poverty, finances, and levels of IT literacy amongst students. In addressing these challenges the participants followed the route of applying multiple strategies or 'holistic' approaches to close any gaps consistent with Moore's (1991) theory of employing various techniques in teaching and learning processes.

5.2.2 Blended learning

Blended learning is commonly defined as the combination of face-to-face instruction with technology-mediated instruction (Graham, 2005). Stacey and Gerbie (2008) defined blended learning as an emergent landscape in educational technology where physical and virtual environments are blended to support learning in university courses. Stacey and Gerbie (2008) further described blended learning as comprising mixed approaches including convergence of face-to-face settings, which are characterised by synchronous and human interaction, and information and communication technologies (ICT) based settings, which are asynchronous and text based and where humans operate independently. These definitions of blended learning point to a blurring of boundaries between 'standalone' distance learning using ICTs to mediate instruction and 'dual modes' in the form of blended learning. Of importance to note is that both

approaches aim at similar goals of (i) increasing learning effectiveness; (ii) increasing convenience and access; and, (iii) increasing cost effectiveness (Graham 2009). In this light, blended learning and e-learning are increasingly acknowledged as approaches that have potential in enhancing the experience of learners in distance learning environments.

The institutions participating in the study introduced a CD-ROM as a tool for bridging the gap using technology to allow students flexibility in terms of access to learning material and tutorial letters at students' own convenient time. According to the participants, in order to accomplish this, knowledge and understanding of the students' profiles, their academic needs and their '*technology profile*' is imperative. In this regard, participants provided insights into the research on the students' profiles, their IT skills and usage. To advance this, students' mobile cellphones information, Internet access and financial support (where necessary), were investigated to '*target and identify at risk students*'. In addition, the study found that the use of blended approaches to teaching and learning has contributed towards closing the gap between the student and the lecturers. This refers to the use of ICTs whereby mobile technology, Internet and SMS technology are used together with contact sessions organised at certain intervals during the academic year. To support this Participant A explained that '*We use SMSs, we use the learning guide itself. We use face-to-face. So there is a mixed delivery that we do*'. The participants from both institutions expressed satisfaction in the models in addressing these challenges which they attributed to the '*holistic approach*' to students' academic support, planning and the structuring of the models in line with the institution's mission and vision.

This view on success was highlighted affirming that effective support structures and systems informed by research and blended learning methods (ICTs and contact sessions) has added value. To a large extent, the study revealed that measuring student retention is complex largely due to student dynamics, environmental factors and capacity challenges, impacting on institutional operations and systems subjected to constant change (not stable). This was evident in the responses provided by participants in the study. Shared views were evident on the changing profile of students in distance education and inconsistent student learning patterns and activities. What emerged here is a scenario proving that not only is the student profile constantly changing, as suggested by Participant B, but there is inconsistency in their enrolment patterns and learning practices, mainly resulting from personal circumstances.

The findings revealed that contact sessions were a major feature of the academic support structure. This theme emerged across cases proving that contact sessions were still essential and valuable in the teaching and learning process. Both cases revealed the importance of contact sessions as a means of addressing the transactional gap and enhancing student engagement and interaction or faculty-student engagement. This is to address the challenge of inadequate Internet access in developing contexts. Bjørke (2006) emphasised the benefits of using a 'dual-mode' as compared to using single-modes, such as using mainly distance learning methods and relying on e-learning in these programmes. Bjørke (2006, p. 11) alluded to the shortcomings of studying degree-giving courses alone. Bjørke (2006) argued that learning to a large extent is a social construct suggesting the need for infusion of contact sessions and student engagement. It is evident from the literature and the findings from the case studies that there is still a reliance on print media, contact sessions, and blended learning to support distance education.

The case study that was conducted by the Natal College of Education with a group of students to investigate the perceptions of students on contact time in distance education pointed to the value of contact sessions in distance education. The researchers argued that contact sessions were key or essential components of distance education to support learners to ensure that they succeed and to develop an efficient distance education system in South Africa. However, they pointed out that the quality of support systems, even with regard to contact sessions, has to be further researched as there is very little research on the perceptions of students regarding contact time in distance education (Avery 1997). The findings of their study revealed that the majority of students perceived contact sessions as valuable and as offering opportunities for closing the distance between them and the lecturers. In overall, contact sessions open up avenues for engagement through group activities and provide a forum for resolving actual problems, critical thinking and reflecting. This pattern is similar to the institutions in this study whereby contact sessions are blended with online learning as a means of providing support to students. However, slight differences were found in the study across cases in terms of the use of contact sessions by students. In Institution B's case, the study found that students used less contact sessions as they found the Smart board technology (interactive contact sessions) through broadcasting sessions and Moodle to be user-friendly and engaging, replicating 'real' classrooms scenarios.

In other words, it is a common perspective based on practical realities and experiences that implementing complementary methods and additional techniques would add value in view of the complexities and dilemma still facing distance education in developing countries. In addition,

the participants from both institutions indicated that they practise programme evaluation whereby they provide feedback questionnaires to students to evaluate the effectiveness of the contact sessions, the quality of tutoring or lecturing, and support systems.

Other techniques were also applied that tie in with effective 'holistic approaches' such as enhanced quality measures, student support-identification of at-risk students, feedback and tutor evaluation to ensure that comprehensive strategic measures are effective. All these measures contributed to enhancing the student experience. Overall, the strategies used proved to be effective and replicable across cases and further engagement is recommended as illustrated below.

5.2.3 Application of supplementary approaches

The strategy based on supplementary measures and methods are in line with Moore's transactional distance theory. Moore recommended the use of a variety of techniques to close the gap. In fact, Moore (1991) suggested the application of various approaches including engaging diverse skills that are systematically organised and deployed and expertise of a number of specialists in distance education teaching. This is evident in planning and programme development phases where relevant people with expertise are engaged to ensure that the programmes developed fit in with the institution's mission, vision, purpose of the programme and strategic objectives. At the same time various aspects of programme delivery are managed by experts in those specific fields. In the interviews with the participants in this study, emphasis was placed on the role of managers and expertise in the field of distance education. This idea emerged when participants shared the conceptualisation of the models and the research that informed strategic planning in the design of the programmes. At all levels, careful consideration of various strategies and programme design streamlined with institutional mission and vision, and advances towards meeting targets set, were designed.

5.2.4 Enhanced quality through quality programme delivery

Another theme that emerged as critical and of concern in ensuring increased access and improved throughput is the theme of quality assurance and the quality of programme delivery including academic and administrative systems, processes and mechanisms for student support. The 'quality of delivery' of these distance education programmes was a central theme. In terms of enhancing quality in programme delivery, the research findings revealed consistencies across cases highlighting the importance and value attached to quality. In fact quality programme delivery and student support emerged as the overarching principles cutting-across cases, in

ensuring effective and sustainable strategies leading to student success. These key themes were influential in all processes in ensuring success of the student experience. These processes were seen as key drivers underpinning efforts to bridge the transactional distance in distance education programmes. Quality being the '*underlying philosophy*' is central to whatever means and interventions used in that regard. This practice supports the theoretical framework and the literature I reviewed and research evidence support this approach to improving student retention and throughput as it shows potential in addressing attrition and increasing or widening student access retention and throughput rates.

This position not only reflected the perceptions of the participants around the assumptions and expectations of the role of distance education in increasing access and improving student retention and throughput, it supports the point made by Fusch (2011) that an institution might tarnish its reputation and incur costs if it fails to perform in accordance with its mission or fails to improve student success rates. Fusch (2011) pointed out that quality and maintenance of quality is central and fundamental, otherwise an institution risks losing its reputation and consequently might not attract students. To this end, quality and student success were the fundamental 'principles' for conceptualising the development of the models. Participant X expressed a similar view to Participant A using words such as '*low quality*', '*reforming*' implying the need for the review of the old models that the institutions followed and '*a risk analysis that informed strategic planning service going forward*' to emphasise renewed strategies and innovation. Continuous monitoring of the quality of provision was recommended to ensure that practices are in line with international standards. At the same time, the findings revealed that benchmarking through research and quality assurance measures has aligned their practices to international best practice models. In this regard, the participants expressed similar practices of programme evaluation through student feedback and participating in the HEQC audits or international institutional audits.

5.2.5 Student support

A similar theme across the cases relates to student support that emerged as a core strategic support initiative in providing quality programmes, thereby improving student retention and throughput, nested within the notion of meeting students' specific academic needs, in a developing context (South Africa). This concept shaped the thinking and approaches in improving student retention and throughput. For instance, in the story of Institution A, an

effective student support structure was identified as the main tenet, hence, their approach to address this was through utilising a '*holistic approach*' taking into account programme structure, programme delivery, administrative issues, etc. committing finances and resources including expertise, technology (electronic and print media) to ensure that effective academic support is provided to students.

This approach to students' academic support is linked to the notion of coherence and integration. Participant A emphasised that the academic content should be aligned 'academically' and 'didactically', and streamlined to students' specific environment hence planning is so important. This suggests that the process is an integrated one with all aspects intertwined such as the content of the programme, the packaging, which the participant termed, '*desktop publishing*', the learning guides, and tutorial letters, learning material, all of which are underpinned by a quality assurance framework.

Desktop publishing takes into considering the technical aspects such as layout, the design and includes issues such as icons used, the space in between letters or words so that materials are not too text dense. From the above citations, themes such as programme *planning* and a *delivery model* that supports *managerial, logistical, structural, and systems*, emerge. This supports the importance a *holistic, coherent and integrated* approach implying that a model must incorporate all activities, assumptions, actions and practices that support planning, design and development of the programme, programme delivery etc. nested in institutional ethos and principles based on a quality assurance driven approach. For instance, in terms of administrative support, the participant provided a vivid description of this functional area.

This support system is built on connected internal activities and processes including '*text stylistics and desktop publishing, communication, modules and learning cycles, learning material (text and electronic)/content programming, exams and all relevant information dissemination, being conducted through a user-friendly and supportive environment to maximise student retention and throughput rates*'. In this way, a model allows for students to navigate the system and make use of available opportunities and options through '*dovetailing administration and academics so that the students' gets a seamless high quality service...Seamless high quality!*'

This was pointed out by the participant from Institution A citing learning materials received by students in block sessions that reveal the purposeful and strategic efforts towards achieving student success. The interconnection is made between this process and communication between

the students and the lecturers when delivering their academic content to guide them. This supports Moore's (1991) theory on student engagement to bridge the 'transactional distance' between the learners and lecturers and to strengthen student engagement academically and to foster a sense of belonging facilitated through the communication.

The lessons learnt from this scenario are that; if strategies are not effective in terms of the communications media or the structuring of the programme, bearing in mind the dialogue that should take effect to encourage more interaction; this could result in students feeling alienated and/or dissatisfied with the learning environment and their learning experiences. For instance in the case of students in their first year in higher education, they have to get accustomed to the language used in higher education discourses common in lectures, residences, seminar and tutorial rooms, all academic spaces, policy documents, university statements, boardrooms etc., but which are foreign to these students upon arrival. They need to be equipped with the skills to tap into these spaces and learn how to master institutional discourses to remove any sense of alienation and enable integration into the culture, values system, norms, and to access and comprehend content knowledge and disciplinary discourses (Clarence 2012).

5.2.6 Academic development disposition

To address this challenge foundation phase programmes are built in academic development structures to address specifically language barriers; however the appropriate and effective approach is a holistic one taking into account diverse and complex language barriers and not simply addressing grammar or syntax but transcending these to tackle '*complexities and values of disciplinary discourses and knowledge bases*' (Clarence 2012, p. 20) as well. Ensuring that students have a sense of belonging to the academic environment, and stay connected and are engaged continuously is the key to bridging gaps and different worlds of students and institutional dynamics.

5.2.7 Identification of at risk students

Another recurring theme that was consistent across cases in this study was identification of at risk students. This theme is aligned to the literature on strategies to improve student retention in higher education, a perspective shared by Hughes (2007) that improving retention and identifying 'at risk' learners are critical issues in higher education and providing good student support is recommended to address this challenge. In both cases identifying at risk students was accorded importance as an effective strategy based on understanding student profiles and

dynamics such as students' demographics and the correlation between student success and students' socio-economic status, backgrounds, age, gender variables. As a success strategy it blended well with support systems in that identifying at risk students enables provision of relevant support to categories of students that need specific support. This strategy proved to be effective in this study as it demonstrated how particular groups of students, for instance, adult students or students who fail to submit assignments are tracked and those at risk are identified, in order to provide these students with support they need to enrich their learning experiences. By so doing, costs are minimised because relevant measures are applied to address these specific needs targeting a group of students in a cost effective way.

5.2.8 Student feedback

A similar finding also revealed that student feedback is an important strategy linked to enhancing quality of delivery. This theme was consistent across cases with all participants acknowledging the value of student feedback to improving their systems and quality of programme delivery. Participant X from Institution B stressed that getting feedback from students through the evaluation of programmes is effective as a mechanism for 'improving quality which feeds back into the system'. This common practice is conducted through student questionnaires sent to students to evaluate the quality of the programmes and for them to comment on any aspects or areas of teaching (instruction), tutoring or lecturing, and/or the tutors or lecturers themselves. Again this practice is consistent with international best practice models discussed in the literature.

5.2.9 Student retention and throughput

Discussing these findings in the light of the emergent themes and patterns illuminates the extent to which the challenges associated with student retention phenomenon are being addressed by the participating institutions. The literature pointed to persisting challenges of poor student retention and throughput in some distance education programmes in spite of the efforts from governments, higher education institutions, and research conducted to address this challenge and the call for more to be done (Tinto 2006, Rendon 2000, Yorke 2004, Terrenzini & Reason 2005). The literature also pointed to complexities surrounding distance education environments impacting on the student success and throughput – the distance education mode of delivery is perceived to be muddled with challenges and consensus in the literature on distance education highlights the challenges in distance education provision. Both cases in the study illuminate

holistic approaches as effective within the South African context considering the uniqueness of its distance education environment and students' needs.

Mapping out the reasons for attrition and research into student profiles proved to be useful for understanding the scale of the phenomenon and strategies used in meeting the targets set. The NPHE (2001) set a target of 30% graduation rates for distance education and 60% graduation rates for contact institutions in order to improve postgraduate throughput rates in order '*to develop the optimum mix of specific knowledge and generic skills required by the changing labour market and the new knowledge economy*' (Subotzky 2003, p. 356) and to '*satisfy the current demands for high-level skills*' (ibid., p. 371). Both institutions demonstrated their attrition, retention and throughput rates through documented evidence drawn from student data and presentations. Findings from the trend analysis of Institution A's attrition and graduation rates revealed 4% attrition rates and an average of 65% graduation rates for the two undergraduate programmes and an average of 50% for the BEd (Honours) programme, with 6 066 students graduating from the BEd (Honours) programme during the period 2003 to 2011. In terms of cumulative throughput rates for the BEd (Honours) programme, the trend shows an average of 48% for the first five cohorts of students. The trend analysis based on graduation rates for Institution B for the period 2010, 2011 and 2012 showed incremental pass rates in the BEd (Honours) programme as 35,9%, 52,7% and 66,3% respectively. The trends presented here highlight the efforts by the institution in meeting the set targets in the NPHE. Considering these trends, it is evident that significant strides or milestones have been reached in improving graduation rates. These findings address the research questions. It is an indication of the improvements made on an ongoing basis in relation to student throughput supported through research and benchmarking practices. This certainly does address the main research question, "To what extent are institutions succeeding in meeting the targets set in the NPHE?" and partially addresses the sub-research question, "What were the trends in the throughput and retention rates in the B Ed (Honours) programmes in the two institutions for the period 2001-2010?" Data for the period pre-2008 was not available for Institution B.

However a contrasting finding in the study relates to the monitoring of students in the programme and consequently monitoring throughput rates. Participant X from Institution B, reflecting on his experience of this issue, stressed that it was extremely difficult for them to monitor each student in their programme. Reference was made to student profiles and numbers in other large ODL institutions.

To enhance understanding of the student retention phenomenon and strategies, scoping of the phenomenon and strategies were considered. Firstly, it is widely acknowledged that the high dropout rates experienced in most countries is a critical area. The Open University United Kingdom (2002) reported that among 29 OECD states, the United Kingdom had the lowest dropout rates of 19%, compared to the United States (37%), Germany (28%), and Australia (35%) in 1998 (Tresman 2002). African universities are struggling as well with sub-Saharan Africa having the lowest participation rate in the world (5%); it is faced with the challenges of improving success rates in a context of poverty and poor infrastructure (Altbach, Reisberg & Rumbley 2009). Reaching worldwide conclusions on withdrawal rates is problematic given the variances in patterns of students dropping out from courses at a given time (McGivney 1999). For instance, there may be no students withdrawing from one course while more students withdraw from another (ibid.). However, research showed that withdrawal rates in degree courses attracting mature students (15%) are higher than standard courses (9%), and that distance education has higher withdrawal rates than other forms of provision (Tresman 2002; McGivney 1999).

Various reasons for dropping out or non-persistence in studies by students are acknowledged in the literature and in the findings of this study. The common ones include '…*the age at commencement of studies, the wrong choice of study course, transition from secondary school to HE, and financial reasons... older students, students without clear motivation for attending H.E., students whose personal circumstances changed, part-time students, the initial choice of the course, personal problems, pre-HE preparation/schooling; financial burden of tuition fees, "academic integration" and "social integration"'* (van Stolk et al. 2007, p. xiv). Others that are institutional are *lack of appropriately developed instructional and assessment methods, lack of infrastructure, oversized classrooms, lack of staff capacity, and poor quality of delivery* (Negash, Olusola & Colucci 2011). The reasons for student attrition cited by the participants in this study were aligned to these highlighted reasons in the literature. In addition, the participants mentioned administrative challenges, poor quality of delivery, pregnancy, workloads, personal circumstances, socio-economic status, and the lack or limited access to the Internet as having an influence on alienating students, student satisfaction, student learning experiences, resulting in students' decisions to either continue or discontinue with their studies. The findings reveal the necessity for concerted efforts in increasing access and minimising student attrition. These institutional proactive initiatives are detailed in Chapter 4.

5.3 Theoretical implication

The literature pointed to models grounded on principles of widening access, interactive teaching and learning and student engagement, effective student support structures and systems, monitoring student success through continued monitoring enrolments and graduations rates, using ICTs to enrich learning experiences, establishing communities of engagement i.e. student-student, student-tutor, student-lecturer, effective assessment practices etc. Whilst the models presented above reflect a seamless account of the role of online and blended learning, with the introduction and incorporation of ICTs for pedagogy or curriculum design to support students in distance education, the scenario in southern Africa and South Africa, in particular, is complex suggesting caution in the implementation of online or blended approaches that are tailor-made to the needs of our students within their specific contexts. For instance, what is needed is carefully designed course material or programmes to support learners and maximise the learners' experience. The point made here is that, though there are similarities in terms of the practices and experiences or lessons learnt around the world in using ICTs in learning environments, approaches differ because of the uniqueness of factors shaping the learning environments. Moore (1991) observed that the transactional distance which is a 'geographical' and 'emotional' distance between the students and lecturers can be bridged through the application of various techniques to enhance lecturer-student engagement. According to Moore (1991), the application of various techniques including experts, carefully designed programmes that are less structured, learning material, student support, etc. has great potential of enriching the student experience and enhancing student engagement resulting in student success. Students involved in less structured learning programmes that allow for more interaction between lecturers and students are likely to be not affected by the transactional distance (Moore, 1991). In situations where students are physically removed in terms of time and place, the transactional distance for similar programmes will be greater. The participating institutions have developed less structured and more interactive learning activities and technologies to bring the lecturers and the students closer; thus, bridging the transactional distance through offering students support they need to succeed. At the heart of this are increased interactive teaching and learning strategies, levels of engagement, and effective sustainable student support structures to support teaching and learning (Moore 1991). Student centred approaches were found to be effective and were explored by the participating institutions. In this regard, the conceptualisation of the models took into consideration ICTs, blended learning methods, contact sessions, student support,

identification of at risk students, and supplementary strategies to ensure that the approach used is student-centred accommodating their specific academic needs.

5.4 Practical implication of the study

The critical issues are the high failure rates, dropout (student attrition)) and poor student success rates from the education and training system. Though distance education is key in addressing these challenges, due to its potential of reaching out to a global range of students from diverse backgrounds, the practical implication is that there are existing challenges in distance education environments, evident in the literature and the case studies. Consensus in both the current study and the literature points to improved outcomes resultant from the strategies implemented to improve student attrition, retention and success rates. Therefore the practical implication leans towards evidence from the data in this study that reveals that benchmarks set in the NPHE document are not unrealistic as the data suggests that these targets could be met. It is evident from the study that through the application of approaches and strategies that are effective and grounded in student realities and understandings of diverse contexts of learning, the set targets in the NPHE could be exceeded, as is evident in the study. However for further consideration is research into performances in other fields of study in distance education. Another critical issue emerging from the study and literature is the widely held perceptions about the quality of delivery in distance education. With student support in distance education having been of poor quality in the past, it has been difficult to achieve the desired outcomes of distance education (Avery 1997). Avery (1997) observed that distance education has been loosely conceptualised especially in the developing contexts with limited research done on students' perceptions of support or the effectiveness of support services. The participants in this study consistently emphasised quality measures and quality control in programme delivery and renewed strategies built to improve quality in distance education, hence their models focus on improved quality of provision.

5.5 Recommendations

It is worth acknowledging the successes of the participating institutions in addressing student retention and throughput in the BEd (Honours) programme. Evidence from the stories of the institutions and the data analysed reveal great strides and progress made towards meeting the set targets in the NPHE in terms of throughput. Their models can be replicated to other distance education environments and traditional settings with success through application of similar approaches and techniques, for instance, the use of ICTs, blended learning and multiple

strategies to support students academically. Through their experiences these institutions shed insights into feasible, sustainable and practical approaches and techniques that are helpful in addressing student retention and throughput in distance education contexts.

Having acknowledged the successes evident in the theories and models on good practices illustrated above, it is worth noting the value added by the strategies used by the institutions to address gaps and barriers to success such as widening access, limited access to Internet, students' financial constraints, poor quality and student support.

In terms of widening access, tackling the issue of high dropout rates of students in their first year of learning is important. To address this challenge it is recommended that institutions investigate measures including support systems and interventions in the first year of the student journey. To this effect, academic development programmes or foundation programmes ought to be strengthened, targeting first year at risk students. The schooling system ought to be prioritised in terms of improving the quality of basic education including the foundation phase as this has implications for higher education.

When one considers the quality of secondary education, looking at the poor performances of learners in critical learning areas such as Literacy, Numeracy and language of instruction, the 30% benchmark and the decline achieving 40% (bachelor pass), the quality of output from the schooling system, more research needs to be undertaken to address these critical issues. This trend impacts on the quality of learners who enter higher education as most of these learners are unprepared for higher education. South African Higher education institutions continue to receive learners from the schooling system that are under-prepared and consequently this poses enormous challenges for the system in terms of improving student retention, success and throughput rates. This challenge will be increased with the trend of declining standards of basic education and high dropout rates of learners in higher education, particularly learners from previously disadvantaged backgrounds. It is also worth noting that these challenges are manifested against a background of 'radical restructuring of the HE system' (Brier 2004; Mabizela et al. 2004) and, possibly, limited student funding (ibid.).

In the light of improving the schooling system researchers put forward recommendations grounded in effective, efficient and sustainable multi-level turn-around strategies including, amongst others;

- ongoing monitoring of learner performances;

- ongoing benchmarking of Matric standards against international standards;
- career advisory services (informed subject choices);
- intensify efforts in encouraging learners to take up Maths, Maths literacy; Physical Science, Accounting;
- improving the quality of teachers teaching Maths and Physical Science;
- Sharing best practice models in teaching critical subject areas;
- Support for poorly performing schools should be prioritised; and,
- Collaborative initiatives strengthened to enhance student success.

Research conducted recommends the angle of tackling the root causes to address the numerous challenges facing the schooling system. The DBE has developed long-term strategic plans and interventions to address these challenges. To support this strategy, short-term and long-term interventions at government, institutional, and communal levels are necessary, as well as support from stakeholders, business and other organs of society would be helpful. For instance, big business could provide funds and student bursaries for previously disadvantaged students to address poverty and lack of infrastructure in schools especially schools with no or limited libraries, science laboratories, school equipment such as computers, et cetera in the rural areas.

Recently, the DBE has acknowledged that the OBE has failed the system and a new Curriculum is been phased in to improve basic education. "In order to succeed, the new curriculum needed a major investment in the training of teachers and the production of textbooks and other learning materials" (Asmal and Wilmot 2001:190). The areas of professional development of teachers and resources in the schooling sector needs revisiting to strengthen these critical areas. Certainly short-term measures are insufficient in addressing these issues (Kriek and Grayson 2009:186) rather holistic long-term professional development of teachers including lifelong learning, reflective practice, programmes to develop teachers' content knowledge and pedagogical content knowledge of Mathematics and Physical science, collaboration with peers, support structures for teachers, and capacity building of teachers (Kriek and Grayson 2009:186), alongside supplementary measures such as building links with other well performing schools in Mathematics and Science education, establishment of community centres as support structures for leaners to engage and share knowledge of Mathematics and Science, strengthening bridging courses, financial aid to students, improving resources and infrastructure. "Many poorer schools lacked either the resources or the will to make the necessary investments. Educational publishers produced new OBE-based textbooks, but poor planning resulted in their late delivery in 1999"

(Asmal and Wilmot 2001:190) and a similar situation recurred in 2012 with the delay in the delivery of textbooks in Limpopo. Infrastructural arrangements ought to be efficiently delivered especially at the foundation phases of the education system to improve on the quality of education as these have huge implications for secondary schooling and higher education.

There is a need to periodically monitor the schooling system to see how it is progressing in as far as improvement is concerned. A three-tiered approach would be recommended. At one level, this suggests the need for ongoing monitoring of the developments within the schooling system itself, in relation to curriculum changes (New Senior Certificate), its Schooling 2025, An Action Plan for the Improvement of Basic Education (2010 – 2013). Perhaps the monitoring of cohorts of learners from the schooling system in terms of their dynamics, school activities following school, expectations, their levels of academic preparedness, and skills they posses as they enter tertiary education. At another level, a process of supporting efforts being implemented by the basic education sector on improving basic education should be provided. Lastly, higher education ought to investigate and strengthen mechanisms to support learners academically. At the same time, more research is necessary to investigate relevant effective sustainable long-term strategies particularly in the areas of learner support, teacher support, resources, collaborative mechanisms, equity and redress for effective learner success.

Asmal further indicates that "Recently, the government streamlined Curriculum 2005 by specifying curriculum content and substance more precisely in order to make reform more practical"(Asmal and Wilmot 2001:190). These echo the current developments of further curriculum reform in the basic education system and these need close monitoring. Moreover, since these challenges have negative implications for higher education in that, higher education is enormously overburdened with the responsibility of supporting learners academically strategies on improving institutional effectiveness should be built around effective institutional research initiatives. Institutional research should support initiatives on improving learner success through researching student dynamics, teaching and learning, learner expectations and experiences, conducting ongoing studies aimed at monitoring the schooling system, and institutional effectiveness.

Funding mechanisms should be looked into in relation to the strategies to improve student retention and throughput. The issue around financial support is flagged here as being critical. Policy points to a funding model that is aligned to increased student success and throughput rates. The underlying assumptions are that institutional effectiveness is measured against student

support instruments that build student success and throughput. Therefore, in response to this challenge, higher education has to ensure that funding and the student support systems that are in place, are effective and sustainable to meet the academic needs of learners entering higher education. Should higher education continue to receive unprepared learners, the system will perpetually be overburdened with the responsibility of preparing and supporting under-prepared learners academically. Funding should be linked to capacity as distance education enrolments increase. If this issue is not well tackled it could potentially undermine the efforts already underway in increasing and widening access. With more and more increased enrolments, this could be a threat to the capacity of distance education providers and would have major implications for quality in distance education. In order to ascertain whether this is an intervention that is appropriate at institutional level or national policy level, more research is recommended.

Therefore, we need to answer the question, what are the strategies in place and how effective are they in addressing the challenges? What are the implications of these strategies not being properly applied? Further engagement and research is recommended especially in the areas of assessment in distance education which is a grey area. Further research is recommended in assessment strategies that are appropriate for distance education and linked to best practice and quality. The study found that ICTs have considerable potential in bridging the transactional gap between the student and the lecturer. In fact the literature points to numerous advantages of using e-learning such as giving a voice to students, enhancing interactivity between instructors and learners (O'Neil 2006), flexibility, openness in programme delivery, student centred approaches, and heightened levels of engagement between the lecturer and the student (Moore 1991). This is also evident in the literature on distance education points to a boom in e-learning and increased enrolments in distance education.

The findings of this study revealed that ICTs such as computers, laptops, mobile technology, SMSs, audiotape, videotape, the Internet, interactive whiteboards, CD-ROMs, Moodle, software, and Learning Management Systems, have an advantage of bridging the transactional gap between the lecturer and students and enhancing lecturer-student interaction and faculty-student communication. However, the literature and the findings of this study reveal the shortcomings of studying degree-giving courses alone (Bjørke 2006). It is therefore recommended that further research be conducted to investigate and/or explore feasible strategies (including the examples provided above) and the development of well balanced blended learning or the integrating of

contact sessions into e-learning evident in the models of the participating institutions in this study. Well managed integrated processes are recommended for student success.

Lessons could be drawn from the participating institutions' practices and their models are replicable to other distance education environments and can be used to inform alternative paradigms in instances where strategies need to be strengthened. A case scenario is the UNISA which has succeeded in increasing access. An analysis of the enrolment trends at the UNISA shows that there has been sustained growth in headcount enrolments over the period from 2004 to 2009. The absolute figures in 2004 were 205 811 and in 2009 the projected figure was 263 500, a 0.6% increase over 2008. In 2009 and 2010 there was a flat growth; however, in 2008 the headcounts had already exceeded the 2010 Ministry of Educations target of 258 000 (UNISA Annual Report 2009).

However, this increased access would have no value if these students are not retained in the system or if they drop out or are unable to complete their degrees in the minimum time. For instance enrolments in the college of Human Science, which houses the Faculty of Teacher Education, have increased in 2009 to 79 559 students compared to 56 983 in 2006. This increased access should be analysed against graduation trends to determine success rates. The period from 2004 to 2009 shows some increased growth in graduation rates from 14 541 students in 2004 to 22 675 students in 2009, an increase of 64% (Department of Information and Strategic Analysis 2011). However, these statistics are generic and apply to the entire university enrolment trends. What remains to be analysed in the light of further research are the enrolment and graduation trends in specific distance education programmes which show challenges in addressing student retention, success, and throughput.

Further research is recommended for exploring measures that would enable distance education to meet the targets set in the NPHE (2001). The question asked is: how are institutions offering distance education programmes other than teacher education experiencing student retention and throughput? What are the models they have in place and how are they effective in addressing student retention and throughput? This research would be useful for benchmarking against the models presented in this study and the sharing of information on best practice, particularly around the use of ICTs and reliance on ICTs as the common practice in some distance education programmes. Training is recommended as a way forward to address shortcomings in the practice. In a developing context, reliance on ICTs might not be sufficient in tackling complex issues surrounding student retention and throughput particularly with regard to bridging the

transactional distance between lecturers and students in distance education. At the same time, infrastructural limitations are experienced in developing countries. For instance a common challenge is that the majority of people still do not have access to the Internet let alone own a personal computer and the Internet has not penetrated the rural areas, creating an access barrier to learning for people in the rural areas. It is recommended that further research is conducted to inform policy and to address this challenge across higher education.

5.6 Conclusion

In conclusion, it is evident from the literature and findings that student retention and throughput is a well researched area and efforts are being made to address the challenges of student attrition, low success rates and poor throughput in higher education not only in South Africa but globally. Earlier theories show that this has been a longstanding challenge suggesting difficulties in resolving the issues. The emerging themes as revealed by the findings and consistent across the cases included: development of open distance learning (ODL) models tailor- made to meet academic needs of students, student support mechanisms, flexibility, quality and student success, student academic support – targeting and identifying at risk students, use of ICTs in teaching and learning, effective administrative systems to support teaching and learning, and quality assurance – benchmarking and best practice. Again, the *'uniqueness'* of the models of the institutions, in terms of *'flexibility'* and a conducive learning environment, has contributed to enriching students' learning experiences. The fact that these models were tailor-made to meet students' academic needs within the developing contexts has had a positive effect on the success of these institutions in meeting this imperative objective. It is evident from the findings that the participating institutions' ODL models have contributed towards improving student retention and throughput. The holistic strategies implemented by the institutions are in line with international best practice models in distance education, evident in the existing literature. At the same time the findings show that these models are replicable in other distance education environments. Lastly, it is evident from the findings of this current study that the research questions have been addressed as evidence points to effective strategies to improve student retention and throughput consistent with the existing literature and the targets set in the NPHE (2001).

References

Achtemeier, SD & Simpson, RD 2005, 'Practical Considerations when using Benchmarking for Accountability', *Higher Education*. Vol. 30, No. 2, pp. 117-128.

Ackoff, R 1981, *Creating the Corporate Future*, John Wiley, New York.

Akoojee, S, McGrath, S & Visser, M 2008, Further education and training colleges. In A Kraak & K Press (Eds.), *Human resources development review 2008: Education, employment and skills in South Africa,* pp. 254–277. HSRC Press, Cape Town.

Akoojee, S & Nkomo, M 2007, 'Access and quality in South African higher education: the twin challenges of transformation', *SAJHE* ,Vol. 21, No. 3, pp. 385-399.

Allen, IE & Seaman, J 2011, *Going the Distance: Online Education in the United States*. Babson Survey Research Group. Massachusetts: Sloan Consortium.

Alonzo, G, López, F, Manrique, D & Viñes, JM 2005, 'An instructional Model for Web based e-learning with a blended learning process approach', *British Journal of Educational Technology,* Vol. 36, No. 2, pp. 217-235.

Altbach, GP, Reisberg, L & Rumbley, EL 2010, *Trends in the Global Higher Education: Tracking an Academic Revolution.* UNESCO.

Aluko, R Presentation: Student demographics (Information from the Unit of Distance Education, Faculty of Education; University of Pretoria). In Council on Higher Education, 2010, *Access and throughput in South African Higher Education: Three case studies*, Council on Higher Education. Pretoria.

Antony, S & Gnanam, A 2004, 'Quality Assurance in Distance Education: Challenges to be addressed', *Higher Education*, Vol 47, pp.143-160.

Astin, AW 1964, 'Personal and Environmental Factors associated with College drop out among high aptitude students', *Journal of Educational Psychology*, Vol. 54, No. 4, pp. 219-227.

Astin, AW 1984, Student Involvement: A Developmental Theory for Higher Education. *Journal of Student College Development*. California.

Astin, AW 1997, 'How good are your institution's retention rates?' *Research in Higher Education.* Vol. 38, No. 6, pp. 647-658.

Avery, NE 1997, Student Perceptions of the use of Contact time in Distance Education: The case of Educational Administration and Management students at the Natal College of Education (NCE). Pietermaritzburg.

Badat, S 2006, 'South Africa: Distance Higher Education policies for access, social equity, quality, and social and economic responsiveness in a context of a diversity of provision', *Distance Education*, Vol. 26, No.2, pp. 183-204.

Badsha, N & Cloete, N 2011, Higher Education: Contribution for the NCP's National Development Plan.

Bayer, AE 1968, The College dropout: Factors Affecting the Senior College Completion. *Sociology of Education*, Vol. 41, No. 3, pp. 305-316.

Baxter, P & Jack, S 2008 'Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers', *The Qualitative Report*, Vol. 14, No. 4, pp.554-549.

Bean, JP 1980, 'Dropouts and turnover: The Synthesis and Test of a Causal Model of Student Retention', *Research in Higher Education*, Vol. 12, pp. 155-187.

Bean, JP & Metzer, BS 1985, 'A Conceptual Model of Non-traditional undergraduate student attrition', *Review of Educational Research*, Vol. 85, pp. 485-540.

Benbasat, I, Goldstein, DK, & Mead, M 1987, 'The Case Research Strategy in Studies of Information Systems'. *MIS Quarterly*, pp.369-386.

Berg, BL 2007, *Qualitative Research for the Social Sciences* (4th ed.), Pearson Education, California.

Berge, ZL & Huang, Y 2004, 'A Model for Sustainable Student Retention: A Holistic Perspective on the Student Dropout Problem with Special Attention to e-Learning', *Deosnews*, Vol. 13, 5.

Bjørke, SA 2006, *Globalisation, ICT and impacts on education: The digital divide – a developmental challenge?* Global Virtual University, Arendal, Norway.

Boughey, C 2010, *Academic development for improved efficiency in the higher education and training system in South Africa*. Development Bank of Southern Africa.

Buglear, J 2009, 'Logging in and dropping out: exploring student non-completion in higher education using electronic footprint analysis', *Journal of Further and Higher Education*, Vol. 33, pp. 381-393.

Bullen, M, Morgan, T & Qayyum, A 2011, Digital Learners in Higher Education: Generation is Not the Issue. *Canadian Journal of Learning and Technology,* Vol.37 (1), pp. 1-24

Cloete, N & Bunting, I 2000, *Higher Education Transformation: Assessing Performance in South Africa*, CHET, Pretoria.

Clarence, J 2012, Academic development and the 'Language Problem'. In C Hutchings & J Garraway (eds.), *Beyond the university gates: Provision of extended curriculum programmes in South Africa.* Proceedings of January 2009 Rhodes University Foundation Seminar hosted by Professor C Boughey. Viewed 7 June 2012, http://www0.sun.ac.za/heltasa/file.php/1/Foundation/Rhodes_Foundation_Seminar_book_final.pdf

Chickering, WA & Gamson, FZ (eds.), 1991, *Applying the Seven Principles for Good Practice in Undergraduate Education* (New Directions for Teaching and Learning No.47), Jossey Bass San Francisco, CA.

Conway, M 2003, 'Scenarios and University Planning', *Journal of Institutional Research*, Vol.13, No.2, pp. 34-40.

Cosser, M & Letseka, M 2010, Introduction. In: Letseka, M., Cosser, M., Breier, M. & Visser, M. *Student retention & graduate destination: higher education & labour market access & success,* HSRC Press, Cape Town.

Council on Higher Education (CHE) 2010, HEQC Higher Education Monitor No. 11: Report on the National Review of Academic and Professional Programmes in Education.

Council on Higher Education (CHE) 2004, HEQC Framework for the Re-accreditation of Teacher Education.

Council on Higher Education (CHE) 2004, HEQC Criteria for Programme Accreditation.

Creed, C 2001, *The use of distance education for teachers*. Report for DFID.

Creswell, JW 2007, *Qualitative inquiry and research design: Choosing among five approaches* (2nd ed.), Sage, Thousand Oaks, CA.

Crosling, G, Heagney, M & Thomas, L 2009, 'Improving student retention in higher education', *Australian Universities Review*, Vol. 51, no.2.

Dalsgaard, C 2006, Social software: E-learning beyond learning management systems: http://www.eurodl.org/materials/contrib/2006/Christian_Dalsgaard.htm

Danaher, PA & Umar, A 2010, *Teacher Education through Open and Distance Learning*, Common Wealth of Learning, Vancouver.

Demetriou, C & Schmitz-Schborski, A 2011, Integration, Motivation, Strength and Optimism: Retention Theories, Past, Present and Future in R. Hayes (ed.), Proceedings of the 7th National Symposium on Student Retention, Charteston, pp. 300-312.

Department of Education 1992, *Education Renewal Strategy: Questions and Answers*, Department of Education, Pretoria.

Department of Education 1996, *Green Paper on Higher Education Transformation*, Department of Education, Pretoria.

Department of Education 1997, *Education White Paper 3: A programme for the Transformation of Higher Education*, Department of Education, Pretoria.

Department of Education 2000, *Norms and Standards for Educators*, viewed http://www.polity.org.za/html/govdocs/notices/2000/not0082.html

Department of Education 2001, *National Plan for Higher Education*, Department of Education, Pretoria.

Department of Education 2005, *Student enrolment planning in public higher education*, Department of Education, Pretoria.

Department of Education 2008, *Strategic Plan 2008-2012 and Operational Plans 2008-2009*, Department of Education, Pretoria.

Department of Higher Education 2012, *Draft Policy Framework for the Provision of Distance Education in South African Universities*, Department of Higher Education, Pretoria.

Department of Higher Education & Training 2012a, *Draft Policy Framework for the Provision of Distance Education in South African Universities 2012,* Department of Higher Education & Training, Pretoria.

Department of Higher Education & Training 2012b, *Green paper for post-school educaiton and training.* Pretoria: Department of Higher Education and Training.

Department of Information and Strategic Analysis Briefing on an Analysis of UNISA's 2009 Graduations, 2011.

Department of Labour (DoL) 2001, *Human Resource Development Strategy for South Africa. A Nation at Work for a Better Life for All,* Department of Labour, Pretoria.

Diallo, B, Wangeci, C, & Wright, CR 2012, Approaches to the production and use of OERs: The African Virtual University experience. In R McGreal, W Kinuthia & S Marshall (eds), *Open educational resources* (working title), Athabasca, Canada: University of Athabasca Press. Free online version of the book chapter will be available at http://www.aupress.ca/OER Africa, Using Technology in African HE.

Dowd, AC & Tong, VP 2010, *Benchmarking for Accountability and Productivity in Higher Education: Evolution towards Evidence-Based Inquiry Councils Audit Report on the University of South Africa.*

Ellis, R, Ginns, P & Piggott, L 2009, 'E-learning in higher education: some key aspects and their relationship to approaches to study, *Higher Education Research and Development*, Vol. 28(3), pp. 303-318.

Finch, D & Jacobs, K 2012, Online Education: Best Practices to Promote Learning, (working paper), presented at the Proceedings of the Human Factors and Ergonomics Society Annual Meeting, Vol. 56, pp. 546-550. Free online version will be available at http://pro.sagepublication.com/content/56/1/546.

Forsman, J, Linder, C, Moll, R & Fraser, D 2011, 'New Approaches to Modelling Student Retention through an Application of Complexity Thinking', *Studies in Higher Education*, Vol. 36, 8.

Fusch, D 2011, *Social media: Uncovering opportunities for higher education*. (Higher Ed Impact Monthly Diagnostic, January-February), Academic Impressions, Denver, CO.

Gaytan, J & McEwen, BC 2007, 'Effective Online Instruction and Assessment Strategies', *American Journal of Distance Education*, Vol. 21(3), pp. 117–132.

George, AL & Bennett, A 2005, *Case Studies and Theory Development in the Social Sciences*. MIT Press, Cambridge, MA.

Glelis, I 2010, The student's perspective on access, retention and diversity. Access to Success: Fostering Trust and Exchange between Europe and Africa, Project Compendium, pp. 75-84.

Gokool-Ramdoo, S 2008, 'Beyond the Theoretical Impasse: Extending the applications of Transactional Distance Theory', *The International Review of Research in Open and Distance Learning*, Vol. 9, No. 3.

Goldman, M 2005, *Imperial Nature: The World Bank and Struggles for Social Justice in the Age of Globalization*. Yale University Press, New Haven.

Graham, C 2005, Blended Learning Systems: Definitions, Current trends and future directions. In C Bonk & C Graham (eds.), *The Handbook of Blended Learning*, John Wiley & Sons, San Francisco.

Graneheim, UH & Lundman, B 2004, 'Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness', *Nurse Education Today,* Vol. 24 (2), pp. 105-112.

Heerden, J, Bohlmann, H, Giesecke, J, Makochekanwa, A & Roos, L 2007, *Higher Education Impact*. Universities in the South African Economy, HESA.

Heirdsfield, A M, Walker, S, Walsh, K & Wilss, L 2008, 'Peer mentoring for first year teacher education students: The mentors' experience', Mentoring & Tutoring', *Partnership in Learning*, Vol. 16 (2), pp.109-124.

Higher Education Programme and Policy Council of the American Federation of Teachers, 2000, *Distance Education: Guidelines for Good Practice*. American Federation of Teachers.

Hofmeyr, J & Hall, G 2001, National Teacher Education Report.

Höst, M 2009, 'Guidelines for conducting and reporting case study research in software engineering', *Empir Software Engineering*, Vol. 14, pp. 131-164.

Hsieh, H & Shannon, SE 2005, 'Three Approaches to Qualitative Content Analysis', *Qualitative Health Research*, Vol. 15, No. 9, pp. 1277-1288.

Hughes, G 2007 'Using blended learning to increase learner support and improve retention', *Teaching in Higher Education*, Vol.12(3), pp. 351-365.

Hutchings, C & Garraway, J 2010, *Beyond the University Gates: Provision of Extended Curriculum Programmes in South Africa*, Rhodes University Foundation Seminar.

Kangai, C & Bukaliya, R 2011, 'Teacher Development through Open and Distance Learning: A case for Zimbabwe', *International Journal on New Trends in Education and their implications*, Vol.2, 4.

Kast, EF & Rosenzweig, JE 1972, 'General Systems Theory: Applications for Organization and Management', *Academy of Management Journal*, Vol. 15, 4, pp. 447-465.

Kranz, CA 2011, *A qualitative case study of novice Kenyan primary school teachers: What messages transmitted by the teacher training colleges are internalized and applied?* University of Central Florida, Florida.

Kelly, P & Stevens, C 2009, Narrowing the distance: Using e-learning support to enhance the student experience', *European Journal of Open, Distance and E-learning.*

Kerka, S 1996, *Distance Learning, The Internet and the World Wide Web.* Eric Clearinghouse on Adult Career and Vocational Education Columbus OH.

Laszlo, A & Krippner, S 1998, Systems Theories: Their Origins, Foundations, and Development. In J.S. Jordan (Ed.) *Systems Theories and A Priori Aspects of Perception,* pp. 47-74. Elsevier, Amsterdam.

Letseka, M 2007, 'Why Students leave: the problem of high university dropout rates', *HSRC Review*, 5 (3), pp.8-9.

Letseka, M & Cosser, M 2010, Student Retention and Graduate Destination, HSRC, viewed http://www.hsrcpress.ac.za]

Li, L, Finley, J, Pitts, J & Guo, R 2011, Which is a better choice for student-faculty interaction: Synchronous or asynchronous communication? *Journal of Technology* Research, Vol. 1 pp. 1-12 retrieved at http://w.aabri.com/manuscript/10682

Lopez-Perez, M V, Perez-Lopez, M C & Rodriguez-Ariza, L 2011, Blended Learning in Higher Education: Students' perceptions and their relation to outcomes. *Computers and Education,* Vol. 56(3), pp. 818-826.

Mabizela, M 2004, *The Business of Higher Education: A study of private-public partnerships in the provision of higher education in South Africa.* HSRC Press, Cape Town.

Marshall, MN 1996, *Sampling for qualitative research.* Oxford University Press, Oxford.

Materu, P 2007, *Higher Education Quality Assurance in Sub-Saharan Africa: Status, Challenges, Opportunities and Promising Practices. Africa Region Human Development Department.* Washington, USA: The World Bank.

May, S 2010, Access and Retention at Kingston University, London. Access to Success: Fostering Trust and Exchange between Europe and Africa, *Project Compendium*, pp. 45-51.

McGivney, V 1996, *Staying or Leaving the Course: Non-Completion and Retention of Mature Students in Further and Higher Education.* Leicester: National Institute of Adult Continuing Education.

McGivney V 1999, *Informal learning in the community: a trigger for change and development*. NIACE.

Moore, MG 1991, 'Distance Education Theory', *American Journal of Distance Education*, Vol. 5, 5, viewed http://www.ajde.com/Contents/vol5_3.htm#editorial

Moore, MG 1991, Theory of Transactional Distance. In D Keegan (ed.) *Theoretical Principles of Distance Education*, Routledge, New York.

Myers, M 1997, *Qualitative Research in Information Systems*. MISQ Discovery available in MISQ Discovery Archive.

Ndulu, B 2004 Economic Growth and the Challenge of Reducing Poverty and Under nutrition in Africa. Conference Paper presented at the Assuring Food and Nutrition Security in Africa by 2020: Prioritizing Action, Strengthening actors, and Facilitating Partnerships April, 2004, Conference in Kampala, Uganda

Negash, Z, Olusola, O & Colucci, E 2010 *Access, Participation and Retention in Africa: Evidence from a survey on tertiary institutions*. Access to Success: Fostering Trust and Exchange between Europe and Africa, Project Compendium, European University Association, pp. 85-101.

Nieuwenhuis F J & Mokoena, S 2005, 'Decentralisation and the management of change in South African teacher training institutions', *Compare*, Vol. 35, No. 2, pp. 127-137.

Nieuwenhuis, J & Sehoole, C 2013, The Quest for Access, Equity and Social Justice in Higher Education in South Africa. In *Fairness in Access to Higher Education in a Global Perspective,* pp. 189-202.

Nguyen, N & LeBlanc, G 2001, 'Image and Reputation of Higher Education Institutions in Students' Retention Decisions', *International Journal of Educational Management*. Vol. 15, 6, pp. 303-315.

Nora, A 1987, 'Determinants of retention among Chicago College students: A structural model', *Research in Higher Education*, Vol. 26, pp 31-51.

Ogude, NA, Kilfoil, WR, & Du Plessis, G 2012, 'An Institutional Model for Improving Student Retention and Success at the University of Pretoria', *International Journal of the First Year in Higher Education*, Vol. 3, 1, pp. 21-34.

O'Neil, TD 2006, *How Distance Education has Changed Teaching and the Role of the Instructor.* USA: Indiana University of Pennsylvania.

Onwuegbuzie, A J & Johnson, RB 2006 The validity issue in mixed research. *Research in the Schools*, Vol. 13, 2, pp. 48–63.

Onwuegbuzie, AJ & Leech, NL 2007, 'A call for Qualitative Power Analysis', *Quality and Quantity*, Vol. 41, pp. 105-121.

Pascarella, ET & Terrenzini, PT 1991, *How college affects students*, Jossey-Bass, San Fransisco.

Polit, DF & Hungler, BP 1999, *Nursing research: Principles and methods* (6th ed.), Lippincott, Philadelphia.

Polkinghorne, DE 2005, 'Language and Meaning: Data Collection in Qualitative Research'. *Journal of Counselling Psychology*, Vol. 52, 2, pp.137–145.

Rajasingham, L 2011, Will Mobile Learning Bring a Paradigm Shift in Higher Education? *Education Research International,* Hindawi Publishing Corporation, Article ID. 528495

Reason, RD 2003, 'Variables that Predict Retention: Recent Research and New Developments', *NASPA Journal*, Vol. 40, 4.

Reason, RD 2009, 'An Examination of Persistence Research through the lens of a Comprehensive Conceptual Framework', *Journal of College Student Development*, Vol. 50, 6, pp. 659-682.

Rendon, L, Jalamo, RE & Nora, A 2000, *Theoretical Considerations in the Study of Minority Student Retention in Higher Education: Reworking the Student Puzzle.* Vanderbilt University Press.

Rowley, J 2002, 'Using case studies in research', *Management Research News*, Vol. 25, 1, pp.16 – 27.

Sawahel, W 2013, Africa is most dynamic e-learning market on the planet. ICT Africa News and Information: Headline News, Issue No. 256.

Seidel, JV 1998, Qualitative Data, Analysis. In The Ethnograph v5.0: A Users Guide, Appendix E, 1998, Colorado Springs, CO: Qualis Research), viewed http://www.qualisresearch.com/qda_paper.htm

Shaffer, CS 2005, 'System dynamics in Distance Education and a call to develop a Standard Model', *International Review of Research in Open and Distance Learning*, Vol. 6, No 3.

Shea, P & Bidjerano, T 2010. Learning Presence: Towards a Theory of Self-efficacy, Self-regulation, and the development of a Communities of Inquiry in online and blended learning environments. Computers and Education, Vol. 55 pp. 1721-1731

Smidt, H 2010, *Analysis of European institutional survey. The European perspective, widening participation and internationalization.* Access to Success: Fostering Trust and Exchange between Europe and Africa, Project Compendium, pp. 9-32.

Selwyn, N & Robson, K 1998, *Social Research Update*, Department of Sociology: University of Surrey, Issue 21.

Smith, LP & Dillion, LC 1999, 'Authors' response: Toward a systems theory of distance education: a reaction', *American Journal of Distance Education.*

Sofaer, S 1999, Qualitative methods: what are they and why use them? *Special Supplement on Qualitative Methods in Health Services Research, December 1999, Part II. Health Serv Res 1999;* 34, pp.1101–1118.

South African Institute of Distance Education (SAIDE) 2003, *Criteria for Quality Distance Education in South Africa,* SAIDE.

South African Institute of Distance Education (SAIDE) 2004, *Distance education and open learning in sub-Saharan Africa: Criteria and conditions for quality and critical success factor*. Johannesburg and Vancouver: South African Institute for Distance Education and the Commonwealth of Learning, viewed http://www.col.org/SiteCollectionDocuments/04DEinSSA_CriteriaforQuality.pdf

Spady, WG 1971, Dropouts from higher education: Toward an empirical model. *Interchange*, pp. 38-62.

Stacey, E & Gerbie, P 2008, Success factors for blended learning. *Proceedings* A*scilite Melbourne 2008: Consise Paper*, pp. 964-968.

Subotzky, G 2003, *Public Higher Education: Human Resource Development Review*, HSRC.

Subotzky, G & Prinsloo, P 2011, 'Turning the tide: a socio-critical model and framework for improving student', *Journal of Distance Education*, Vol. 32, 2, pp.177-193.

Terrenzini, PT & Reason, RD 1980, 'Toward the validation of Tinto's model of college student attrition: A review of recent studies', *Research in Higher Education*, Agathon Press, Vol. 12, No. 3.

Terrenzini, PT & Reason, RD 2005, *Passing the First Year of College: A Conceptual Framework for studying College Impacts*, Centre for the study of Higher Education, Pennstate.

Thomas, L, Jones, R & May, H 2010 *Literature Review: A Research-Informed approach to improving institutional retention.* Access to Success: Fostering Trust and Exchange between Europe and Africa, Project Compendium, 33-40.

Thomas, L 2001, 'Student retention in higher education: the role of institutional habitus', *Journal of Education Policy*, Vol. 17, 4, pp. 423–442.

Thomas, L 2010, A whole-institution approach to widening access and promoting student success across the student lifecycle. Access to Success: Fostering.

Thomas, L & Tight, M 2011 'Institutional Transformation to Engage a Diverse Student Body', *International Perspectives on Higher Education Research*, Vol. 6, Emerald Group Publishing. Bingley, UK.

Tinto, V 1975, 'Dropouts from higher education: A theoretical synthesis of recent literature', *A* Review *of Educational Research*. Vol. 45, pp. 89-125.

Tinto, V 2004, *Student Retention and Graduation: Facing the truth, living with the consequences*. The Pell Institute for the Study of Opportunity in Higher Education, Occasional Paper.

Tinto V 2006, 'Research and Practice of Student Retention: What next?', *Journal of College Student Retention*, Vol. 8, 1, pp.1-19.

Tones, MJ, Fraser, J, Elder, RL & White, KM 2009, 'Supporting mature-aged students from a low socioeconomic background' *Higher Education*, Vol. 58, 4, pp. 505-529.

Tresman, S 2002, 'Towards a Strategy for Improved Student Retention in Programmes of Open, Distance Education: A Case Study from the Open University UK', *International Review of Research in Open and Distance Learning*, Vol. 3, 1.

UNESCO 2003, *A Strategic Framework for Education Through Distance Education in Sub-Saharan Africa*, UNESCO/BREDA.

University of South Africa 2009, Annual Report 2009 UNISA, Pretoria.

University of South Africa 2011, Department of Information and Strategic Analysis Briefing Report on an Analysis of UNISA's 2009 Graduations, 2011. UNISA, Pretoria.

Vaughan, RP 1968, 'College Dropouts: Dismissed vs. Withdrew', *The Personnel and Guidance Journal*, 46, 7, pp 685–689.

Van Heerden, J, Bohlmann, H, Giesecke, J, Makochekanwa, A & Roos, L 2007, *Higher Education Impact: Universities in the South African economy.* A report for Higher Education South Africa (HESA) September, 2007, pp. 1-3.

Van Stolk, C, Tiessen, J, Clift, J & Levitt, R 2007 Student Retention in Higher Education Courses, Rand Corporation, California [Available at: http://www.rand.org.za]

Wahyuni, D 2012, 'The Research Design Maze: Understanding Paradigms, Cases, Methods and Methodologies', *Journal of Applied Management Accounting Research,* Vol. 10, 1, pp. 69-80.

Walpole, M 2003, 'Socioeconomic Status and College: How SES Affects College Experiences and Outcomes', *Review of Higher Education*, Vol. 27, 1, pp. 45-73.

Wedemeyer, CA & Childs, GB 1961, *New Perspectives in University Correspondence Study*. Chicago: Center for the Study of Liberal Education for Adults.

Wilson, TD 2008, Review of: Berg, Bruce L. *Qualitative research methods for the social sciences* (6th ed.), Allyn and Bacon, Boston, MA.

Woodley, A 2004, 'Conceptualizing student dropout in part-time distance education: pathologizing the normal?' *Journal of Open, Distance and e-Learning*, Vol. 19, 1.

World Bank 2010, *Directions in development: Human development—Financing higher education in Africa.* Washington, DC: The World Bank. Viewed http://siteresources.worldbank.org/EDUCATION/Resources/278200-1099079877269/Financing_higher_edu_Africa.pdf

Yin, KR 2006, Adding new dimensions to case study evaluations: the case of evaluating comprehensive reforms *New Directions in Evaluation*: Informing Federal Policies for

Evaluation Methodology: Building the evidence base for method choice in government sponsored evaluation. Cosmos Corporation.

Yin, KR 1989, *Case Study Research: Design and Methods*, Sage, London.

Yin, KR 1994, *Case Study Research Design and Methods* (2nd ed.), Sage, London.

Yin, KR 1999, 'Enhancing the Quality of Case Study Research in Health Services Research', *Health Services Research,* Vol. 34, No.5, pp.1209-1224.

Yorke, M & Longden, B 2004, *Retention and Student Success in Higher Education.* Open University Press. England.

Yorke, M 2004, *Early leaving: Undergraduate Non-completion in Higher Education*. Taylor & Francis.

Yorke, M 2007, 'Retention, Persistence and Success in on-Campus Higher Education, and their Enhancement in Open Distance Learning', *Open Learning: The Journal of Open, Distance and e-Learning*, Vol. 19, 1, pp. 19-32.

Zhang, Y & Wildermuth, BM 2009 Qualitative Analysis of Content in B. Wildemugh (Ed.), *Applications of Social Research Methods to Questions in Information and Library Science*, Westport, CT: Libraries University Limited, pp. 308-319.

Annexure A

Annexure B – Example of Consent Letter

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA
Faculty of Education

4 February 2013

Dr Johan Hendrikz

Director: Distance Education

Faculty of Education

University of Pretoria

Dear Dr Hendrikz

RE: REQUEST FOR PERMISSION TO UNDERTAKE RESEARCH AT THE UNIVERSITY OF PRETORIA

I am currently pursuing a MEd in Education Management, Law & Policy Studies, at the University of Pretoria and hereby, wish to apply for your permission to conduct research in the Faculty of Education at UP.

My research topic is on Student Retention and Throughput in the BEd (Honours) in Education Management programmes in South African Distance Higher Education. I want to find out whether the strategies used by distance education institutions are effective in addressing challenges of student retention and throughput to meet ministerial targets set in the NPHE in 2001.

My data collection method will involve collating data from institutional databases and HEMIS database at the DoE for analysis. The project tracks cohorts of students in the period 2001 to 2010. To assist me analyse these trends, I intend to examine institutional data on student enrolments and graduation rates. I will also conduct interviews with heads of departments of the BEd (Hons) in Education Management, Law & Policy programmes to determine how effective are the strategies employed by the institutions in the programmes under review.

Therefore, I seek your approval to conduct this study which will be valuable to UP; distance education and the higher education community, considering the shared value of the findings that would be presented and disseminated in the final report. Furthermore, I seek permission to access information on student enrolment and graduation rates from your departmental or institutional database and permission to conduct interviews with the head of department within your College. The draft dissertation will be made available to you for comment.

Your kind consideration to participate in the research is appreciated.

Yours sincerely

Mercy Sondlo
MEd Candidate
Student Number: 23276879
Cell number: 0723914209
E-mail: msondlo@gmail.com

Prof Jan Nieuwenhuis
Supervisor
Tel: (012) 420 2842
Fax: (012) 420 3581
E-mail: jan.nieuwenhuis@up.ac.za

Consent Form

I _____ agree to participate in a study conducted by Mercy Sondlo on "Student Retention and Throughput in the BEd (Honours) in Education Management programmes in South African Distance Higher Education" and hereby give consent to be interviewed on the topic.

I am aware that I am free to withdraw my participation at any time should I wish to do so and my decision will not be held against me.

I understand that my identity and all tape-recorded interviews will remain anonymous and confidential.

I also understand that I will be expected to provide written or oral comments on the draft report.

I grant permission that the interviews may be recorded for research purposes and understand that these will be stored safely.

I have received contact details for the researcher and the supervisor should I need to contact them about matters related to this research.

Signed: _____ Date:_____

Annexure C – Interview Schedule

INTERVIEW SCHEDULE

Title of Research	Student Retention and Throughput in the BEd (Honours) in Education Management programmes in South African Distance Higher Education
Name of Researcher	Mercy Sondlo
Institution	University of Pretoria
Department	Education Management, Law & Policy Studies
Supervisor	Professor Jan Nieuwenhuis
Contact details	Telephone: 072 391 4209 E-mail: sondlmn@unisa.ac.za or msondlo@gmail.com
Date of Interview	
Particulars of interviewee	

1. Introduction (Interviewer and participant) and guidelines

Thank you for taking the time out of your busy schedule to meet with me today for this interview. My name is Mercy Sondlo and I will be interviewing you on your experiences regarding the strategies used in distance education to improve student retention and throughput, focusing on the BEd (Honours) in Education Management. For the purpose of the interview our focus is on the Bed (Hons) but you are welcome to refer to other programmes that had an influence on your teaching and learning strategy in the Honours degree programme.

I want to reiterate that the interview is voluntary and that your identity will be protected for confidentiality purposes. The information you provide will be kept confidential and will not be disclosed, until the finalisation and dissemination to the higher education community and dissemination of the research to the higher education community. You will be given the opportunity to comment on the final draft of the report to verify that I have captured and reported the data collected correctly and to suggest any changes that you deem necessary before finalizing the dissertation. You may withdraw from the research at any stage, even at the point where the draft report has been submitted to you for comment.

With your permission, I will record our discussion and I will take field notes to ensure that I do not miss any information. Is this in order?

The interview will take the form of an open discussion and I will be following a line of inquiry that will enable us to cover the salient areas, but you are free to also talk about other aspects which I might have omitted.

2. Purpose of the Research (as explained to the participant)

The purpose of the study is to look at the strategies used by distance education providers to improve student retention and throughput in line with meeting targets set in the NPHE in 2001. The assumption is that distance education can play a major role in increasing student enrolments and improving student success but the failure rate in these programmes, as indicated in the Green Paper on Post-school education released in 2012, is high. The Report on the National Review of Teacher

Education in South Africa is silent on the BEd (Honours) programmes as the review did not look at honours degree programmes. For this reason I want to focus on my research on the strategies used in distance education programmes to increase the throughput and success rates of students.

1. Please describe the aim and purpose of your distance education programme?

2. Can you give me a broad overview of the history of the programme, i.e. its introduction and adaptations and improvement strategies

3. Do you have any details/information on your students' throughput and success rates that may help me understand the size and scope of the programme.

4. If you look at the throughput and success rate of your students, what are some of the unique challenges that you face?

5. What strategies have you developed to address these challenges?

6. According to your own experience, how successful were these strategies?

7. Let us now look at some of the programme specific detail. What are the admission requirements into the progamme and how are students selected?

8. Do you allow students into the programme on the basis of RPL? (Probe in terms of number admitted through this route as well as the RPL process detail)

9. How will you describe the typical distance education student enrolled in this programme?

10. We will now look at some specific strategies that ODL providers sometimes use to improve the throughput rate? First let us look at learner support structures and systems. What learner support structures and systems have you developed since the inception of ODL and how successful were these?

11. Were there any strategies that you have developed and then discarded because of feedback or cost implications? Provide details

12. It is, of course, also important to look at way in which one can improve the quality of teaching and learning. What are your experiences in this regard?

13. How do you monitor student progress?

14. How do you deal with “at risk” students? That is, how do you identify and support them?

15. Do you make use of any student evaluations of or feedback on the programme?

16. How do you make use of these evaluations and feedback?

17. Do opportunities exist for student input and participation in relevant aspects of the programme?

18. Are students provided with guidance on how the different components of the programme (for example, subjects, courses and/or modules) contribute to the learning outcomes of the programme? Provide detail

19. Is there an appropriate balance between, and mix of, different teaching and learning methods?

20. Are teaching and learning methods appropriate to the design and use of the learning materials and instructional and learning technology?

21. Do you make provision for suitable learning opportunities (e.g. contact sessions or tutorial sessions) to facilitate the acquisition of the knowledge and skills specified in the programme outcomes, and within the stipulated time.

22. Do students actively participate in the teaching and learning process? Motivate your answer.

23. We have now covered the broad range of programme specific issues that may influence student throughput and success rates. Are there any other aspects that you think are important to consider?

Thank you for your co-operation.