CHAPTER 1

PROBLEM STATEMENT, AIMS, OBJECTIVES AND ORIENTATION OF THE STUDY

1.1 Overview of chapter 1

Chapter 1 provides a general overview of this study, which entails:

- ➢ A précis of Chapter One;
- ➢ A supporting background and problem statement;
- ➢ The research questions;
- ➢ The aims and objectives of the study;
- ➢ The research design.
- ➢ A description of the significance, limitations and delimitations of the study.
- ➢ The title and concepts clarification.
- ➢ This chapter ends with a summary that introduces Chapter Two.

1.2 Background and problem statement

According to Tsolakidis (2000), the conventional education

'…is the universally accepted approach for knowledge acquisition. It is difficult for anyone to deny its success which is the main reason why it has survived over the centuries, without facing any urgent need to incorporate revolutionary innovation in its techniques.'

In the same vein, distance education is nothing new. It has a history that spans at least the last 150 years, which establishes it as a legitimate form of instruction (Guri-Rosenblit, 1999:3-6; Holmberg, 2001:9). Distance education is a worldwide phenomenon, and it has become the favoured way for many universities in Africa to meet the escalating demand for higher education among the population (Braimoh, 2003:14).

However, many allegations have, over the years, been levied against distance education. Sadly, this is still the case. These allegations include:

➢ 'Lack of contact with other students which can have a significant effect on the learner's motivation' (Suen & Parkes, 2004) as a result of 'isolation caused by the students and teacher's being separated by geographical distance' (George, 1999);

➢ 'Success in distance education requires a greater degree of self-motivation and self-discipline than is necessary for learning' for which students are not adequately prepared (Keen, 1999);

➢ 'Non-availability of computers, lack of knowledge of computers and lack of knowledge of networking' (Fisher & Desberg, 1995), which is mostly the lot of 'low-income, minority and underrepresented students that are supposedly to be catered for by the programme' (Burke, 2002)

➢ And 'the absence of non-verbal communication' (Barnes, 1995), among others.

Despite the long history enjoyed by distance education and the enhancement of its reputation recently, it is ironical that there is still some persistence in regarding it as the second-best option (Mendels, 1998; Reich, 1999; Stencil, 1999; Aluko, 2000; Braimoh, 2003). Even in countries where distance education has for many years been an available option, where distance learning institutions are well established, there still exists the belief (among academics in particular) that conventional education is 'real' education, while distance education is second-class education.

In support of this, Tsolakidis (2000) stresses that 'there is the opinion that traditional education is non-substitutable …' therefore, 'any non-traditional education is allowed to act on a complementary, somehow subordinate basis'. Consequently, most research on distance education focuses on comparative studies of distance and traditional methods of education (Diaz, 2000; Duffy et al. 2002).

Though it has been thought that there may no longer be the need for such comparative studies, Makin (2001) stresses the evidence of this is inconclusive. Hence my view that the ending of further research in this particular area, especially in a third world country such as South Africa, would be a paradox; this is because current works earlier referred to and even more recent studies (Hall, Thor & Farrell, 1996; Du Plessis & Van Der Merwe, 2005) show that this discriminating attitude still persists.

Consequently, it is the focus of this work to compare these two forms of education with each other in terms of *Access*, *Delivery Mode* and *Output*. This is to fill the gaps (Ehrmann, 1995; Saba, 1998; Phipps, 1999; Lockee, Moore & Burton, 2001; Diaz, 2000) already identified in past comparative studies that include:

  ➢ Failure to adequately define and differentiate between the two forms of education;
  ➢ Lack of taking into consideration other factors that affect the failure or success of students;
  ➢ Lack of focus on the total academic programme
  ➢ Inadequate the reasons for higher dropout rates of distance education students, among others.

Therefore, it is advised that further research on distance education should focus on *students' success* and be *learning-centered*, which would likely sensitize the faculties to the individual learner and prepare them to facilitate distance education (Diaz, 2000; Lockee, Moore & Burton, 2001).

Therefore, in this study, it is not the researcher's interest to focus on 'Which method is better?' (Diaz, 2000) The researcher would rather focus on what discrepancies may exist in distance education, when compared to conventional education, which have resulted in the prevailing skepticism, and focus on suggestions for alleviating such skepticism. In support of this, Hoyt (1999) stresses that:

> *'the need to show that technologically delivered or distance education courses are as effective as lecture methods of instruction is not the most important research question, as it has been proved that the former is as effective in teaching students'.*

However, 'the way to maximize the potential of a particular medium or delivery method seems to be the more relevant question'. Therefore, it is hoped that such a comparison would bring to light the issues that cause such persistence in thought, and also indicate what suggestions can be proffered to alleviate such problems. This becomes non-negotiable because African countries in particular, to which this study is highly relevant, are increasingly turning to distance education as a means of solving the crisis in education (Bollag, 2001). For instance Dhanarajan (1997) predicted that by the first quarter of this century about 150 million young people seeking access to tertiary education would come from the developing world, and that might require the construction of one new university per week for the next twenty years. Also, Umar (2006) reveals that in Nigeria less than ten percent (10%) of qualified prospective students could gain admission into the conventional tertiary institutions.

One should start wondering how conventional education will cope with this expected swelling of student numbers, especially when considered in conjunction with the downturn in the world economy. Stressing this view, Daniel (1996:11) cites that, higher education is facing a crisis that is made up of five components, which are:

> an 'inability to accommodate the volume and variety of student demand; education is too costly and not sufficiently relevant to the labour market; teaching methods are too inflexible to accommodate a diverse student body; educational quality is not assured; and the university's sense of academic community is being eroded'.

These have led to changes already occurring in higher education all over the world that is part of the pointer to this study. Various terms are being used to define these changes: a transformation, (learning) revolution, and paradigm shift (Pacific Crest, 2004).

The concept *paradigm shift* is mentioned when 'difficulties or anomalies begin to appear in the functioning of the existing paradigm which cannot be handled adequately'. And when there exists 'an alternative paradigm that will account for all that the original paradigm accounts for…and that offers real hope for solving the major difficulties facing the current paradigm' (Bair, 1995).

Three changes as such may be identified:

Firstly, the paradigm shifts from a teacher-centred instruction or teaching paradigm to a student-centre 'learning paradigm', which creates environments and allows for experiences that encourage self-discovery and construction of knowledge (Gwyer, 1997; Barr & Tagg, 1995; Fraser & Lombard, 2002; Pacific Crest, 2004).

Secondly, the question of access to higher education, that has become an important political demand (Herman & Mandell, 1999). According to Dhanarajan (1997), hardly would one find a political leader 'who does not speak of a need to increase opportunities for post-secondary education in his or her country' though he also argues that leaders are driven by 'economic liberalisation, competition for investment … rather than the desire for pure commitment to greater social equity …'

In support of this, Saint (1997) states that 'on the eve of 21st century, tertiary education in Sub-Saharan Africa confronts unrelenting pressure to expand access in spite of declining educational quality and stagnant funding possibilities'. For example, in South Africa the government sees distance education as a means of equalizing tertiary education access for the majority who have been denied such access (Daves et al. 2004). According to Probert (1995), Blacks who represent over 70% of the overall South African population comprise only 43% of the 351 746 students enrolled in South African universities. Though according to him, 'distance learning enrolment grew by 492% between 1993 and 1999', in contrast to the decrease in enrolment for Conventional Education learning, there is still a long way to go. However, it can be said that this 'long way' is being gradually covered; Education Statistics in South Africa (2002) reveals that enrolment for distant learning courses is steadily increasing (DoE, 2004).

Thirdly, there is no concerted effort to minimize the differences between the two systems of education from various perspectives, mostly concentrating on the peculiar demographic nature of the students, as well as incorporating a wider use of technology as a teaching tool.

For instance, according to Daves et al. (2004), in South Africa it was discovered that in distance education teaching technology had been traditionally print-based, although tertiary institutions are now increasingly introducing varied technologies into their teaching methods. As the differences between distance and conventional education are minimized, both educational systems increasingly have the same modes of delivery (Tait & Mills, 1999).

According to Gwyer (1997), it has been said that these paradigm shifts require numerous changes, some of which are that:

➢ Judgement of institutional success on the quality of student learning;
➢ A seamless system of delivery "providing access to educational services for learners as they need them, when they need them";

> ➢ The vision of the institution itself as a learner in that over time it continuously learns how to produce more learning with each graduating class, each entering student;
> ➢ An institution that creates environments and experiences that bring students to discover and construct knowledge for themselves instead of one that merely transfers knowledge from faculty to student;
> ➢ The continual identification, development, testing, implementation and assessment of a range of effective learning technologies including new applications of computer and information technology and
> ➢ Education that is tailored to the needs of individual students.

Though many of these changes have already been, or are in the process of being implemented in institutions of higher learning, yet Boggs (1995 –1996) observes that it is not easy to change the traditional paradigms that dominate institutional thinking.

Paradigm shifts in higher education are rooted in theoretical underpinnings that have been altered over the years. With the advent of acceptance of critical theory came notable changes from 'scientific theory, recognizing, acknowledging commitment, relativity and subjectivity as unavoidable, necessary and desirable characteristics' (Gibson, 1986:4), as later cited by Fraser and Lombard, (2002:89).

Critical pedagogy, which emphasizes dialogue, democratic participation and the opportunity to protest on the already determined objectives of learning, is what Beck (2004) refers to as post-modernism. Theories have shifted from the behaviourism and cognitivism to constructivism, which presents a new view on how reality is perceived. The nature of knowledge is now perceived as internal to the student, but not static or passive.

Therefore educationists no longer regard the amassing of knowledge by their students as their only focus (Fraser and Lombard, 2002:92). They now acknowledge that reality is determined by the experiences of the knower, based on the network of things and relationships in and with his environment

(Von Glaserfeld, 1995). The implication of this for learning is that focus has shifted from the teacher to the learner. Thus, it has become imperative to focus on giving students what 'they need', and not what 'we offer' (Braimoh, 2003:14). Subsequently, such a paradigm shift affects learning, instruction and organizational structure (Simsek, Louis & Seashore, 1994), and the use of technology.

Additionally, attention has been drawn to the shift in the demographic nature of students of higher learning. Most now opt for distance education, using the mode of study that will enable them to find jobs, maintain these jobs, and - simultaneously - continue their studies. (This shift in focus has been largely due to a scarcity of jobs and accompanying high rate of unemployment within the country.)

Consequently, the challenges facing higher education, among others, include:

> *'Providing lifelong study opportunities to working adults; defining flexible access policies for second-chance students… and designing flexible curricula for a rich spectrum of clienteles…' (Guri-Rosenblit, 1999: xix-xx)*

This paradigm shift in higher education has led to a convergence of conventional and distance education. Tait and Mills (1999) have described this shift as bewildering. Convergence refers to the 'breaking down of barriers between open and distance learning and conventional education, and sees the creation of more and more institutions working across a range of modes' (Tait & Mills, 1999:1). The morphological differences between distance and conventional education are falling away as technology brings the educational exchange between the teacher and the student together (Johnston, 1999: 39; Thompson, 1999:151). Even though the process of learning at a distance was formerly seen as generically different from the conventional mode (Sewart, 1981) but, the same writer (1987:157) later asserted that 'all teaching and learning is based upon the same fundamental principles…There are no unique principles inherent in mainstream education'.

However, according to Jelfs (2001) "… little attention has been paid to 'customer satisfaction' as a measure of quality or through a 'fitness for purpose' definition'. This brings to focus the question of quality that has been raised in higher education, but even more in distance education (Garrison, 1996; Aluko, 2000). Black (1992) recommends that quality should be given more prominence because this alone has accounted for lack of faculty support for Distance Education. For example, in South Africa the Department of Education is 'worried about the need to improve the quality and the learner support services, as well as cost-efficiency and effectiveness of programme' which invariably impact on quality of distance education (DoE, 2001).

Internationally, research shows a trend from external control to internal quality assurance that requires a process of self-evaluation by the institution (SAIDE, 1996). The modern international trend is to view students as 'clients, customers and consumers of higher education' (Mandell & Herman, 1996). For example in the United Kingdom, 'The Charter for Higher Education (1993) explains the standards of service expected from the universities and other institutions that provide higher education in England' (Guri-Rosenblit, 1999:66). In addition to this, countries such as Italy, Denmark, Belgium, Spain and France have laws relating to private educational institutions only (SAIDE, 1996:34). The main aim of such legislation is to protect their consumer's rights, to prevent substandard learning quality. Ritzer (1998) reiterates this by proposing his 'McDonaldization' thesis in which students want education to operate in the same fashion as the McDonald food industry where customer satisfaction ranks supreme.

In closing, a review of available literature shows that there is no consensus on the issue of quality in distance education. This may be determined by various factors such as: 'choice of course or courses (on offer) by institution, assurance of the quality of the whole institution, the quality of the materials provided or the counseling and career guidance provision' (Jelfs, 2001).

1.3   Aims and objectives of the study

The main aim of this study is to investigate and to compare the impact of distance and conventional education on the performances of students in a postgraduate Bachelor of Education degree programme (specializing in Education Management, Law and Policy Studies (BEd Hons). The study will be assessed in terms of *access*, *delivery* and *output*.

In order to achieve this, the following objectives have been set, to:

➢ Expose and compare the essence of both distance and conventional education by means of a literature survey together with statistical tests performed on students in terms of access, delivery mode and output;

➢ Ascertain reasons for the divergences between the two modes of delivery based on the responses of students to the questionnaires and interviews;

➢ Investigate, using questionnaires, to what extent the choice of media has extended access of learning to students;

➢ Assess what direct impact the interaction between the teacher and the students has on the promotion of learning and its outcomes in both forms of education, using questionnaires and conducting interviews;

➢ Investigate what administrative and financial constraints impact students' learning, using questionnaires and conducting interviews;

➢ Identify criteria regarding the quality assurance of distance education that can be applied and to ascertain how justifiable they are.; and

➢ Compare findings from this study with other similar studies by means of a literature survey.

1.4   Research questions

In an attempt to assess the comparability of distance and conventional education in relation to *access*, *delivery* and *output*, this main research question has been identified:

1.4.1 Main research question

What is the comparison between the impact of distance and conventional education on the performances of learners in a postgraduate BEd (Hons) degree program with specialization in Education Management, Law and Policy, when assessed in terms of access, delivery mode and output?

1.4.2 Research sub-questions

The following research sub- questions arise out of the main research question:

Research sub-question 1

Why is distance education often regarded as inferior to conventional education, when assessed in terms of access, delivery mode and output?

Research sub-question 2

What are the demographic and ethnic characteristics of students who choose distance education above conventional education, and to what extent does the choice of media extend access of learning possibilities to students in both modes?

Research sub-question 3

To what extent does the quality of the learning experience in distance education compare with that of conventional education in general and, more specifically, at the University of Pretoria?

Research sub-question 4

What divergences are observable in the output rates of the drop-out rate and performance of students between distance education and conventional education? What factors may contribute to this?

1.5 Conceptual framework

The conceptual framework for this study is based on Moore's Transactional Distance Theory (see Chapter 4, Section 4.3). In an attempt to explain the

concept, Moore (1993) defines it in relation to interaction in an instructional programme, 'as a function of dialogue, structure, and learner's autonomy', which is pedagogical, not geographic, and necessitates 'special organizations and teaching procedures'. Though a distance education theory, scholars have made attempts to test its relevance (Saba & Shearer, 1994; Amunsden, 1996; Bischoff et al. 1996; Saba, 1998; Gorsky & Caspi, 2005), and have discovered it can apply to both modes of delivery (Bischoff et al. 1996) because transactional distance is in all modes of delivery (Moore, 1993, 1996; Mueller, 1997; Stirling, 1997).

The concept has been adopted for this study in order to see the interrelatedness between the three selected variables. For instance, past studies (Garrison, 1996; SAIDE, 1996; Perraton, 2000; Dhanarajan, 2001) have revealed that the delivery mode of a form of education and its quality are directly related to access, either positively or negatively. Related to this is the output rate of both forms of education.

In other words, there is interplay between teaching and learning as they affect these criteria. And I hope this concept will solve the puzzle in my mind. This framework is explained in Chapter Four, and it focuses on quality issues as they relate to the three chosen elements of assessment.

1.6   The design of the study

Research design has been defined as 'a general strategy or plan for conducting a research study which includes exploration of posed research questions, and a detailed presentation of the research steps to be followed in collecting, choosing, and analyzing data' (Gay & Airasian, 2003).

This study is a descriptive and interpretative case study whereby the focus is 'essentially a research in depth rather than breadth' (Verma & Mallick, 1999:81). However, both qualitative and quantitative approaches were employed for this study.

1.6.1   Target population

All the participants in the study were drawn from University of Pretoria, Faculty of Education, Department of Education Management and Policy Studies in South Africa.

Two identical but separate studies were conducted with the participants, who were:

- Students registered to study the BEd (Hons) (Education Management, Law and Policy) in 2004. There were 127 Distance Education students and 45 Conventional Education students who participated in this study.
- 6 Module Coordinators who administer both the Distance and Conventional Education study programmes.
- 10 Course Presenters who teach courses that are part of both the Distance and Conventional study programmes.
- 4 Tutors who work with students and lecturers in the department
- 4 members of University of Pretoria staff, who administrate both the Distance and Conventional Education study programmes.
- 1 Instructional Designer. (Students from both the Distance and Conventional Education study programmes use the same learning materials.)
- A total of 20 students - 10 students from both modes of delivery - who had dropped out of the study programme in 2004 (or previous year).
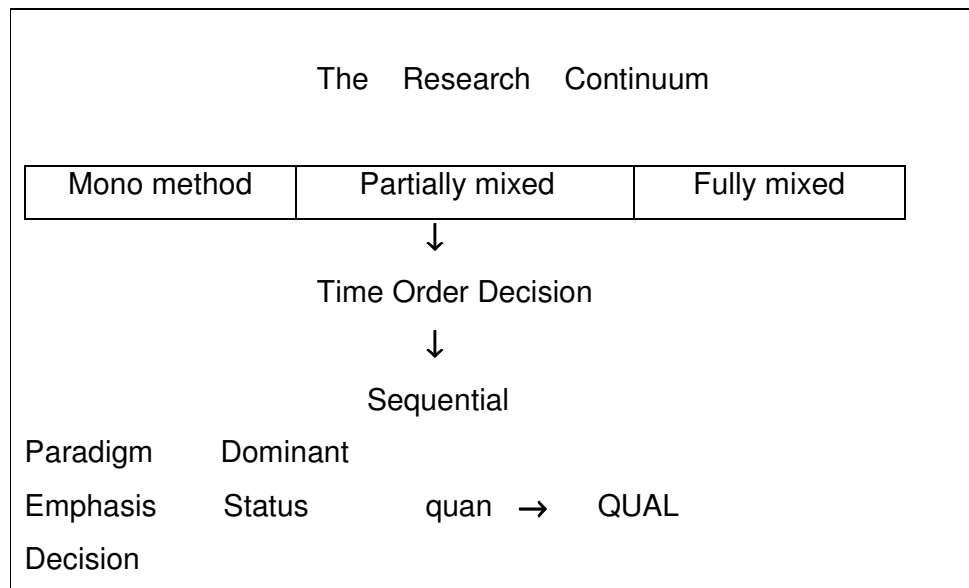
1.6.2   Research methodology

To achieve the aims and objectives identified in a previous section of this thesis, a mixed-method research approach (Richie & Lewis, 2003) was applied. According to Seale (1999), each question itself often determines which research method to best apply. It has been advocated 'that research approaches should be mixed in ways that offer the best opportunities for answering important questions' (Johnson & Onwuegbuzie, 2004).

Therefore, the researcher's method was 'complementary' and aimed to 'seek elaboration, enhancement, illustration, (and) classification of the results from one method with the results from the other method' (Greene, Caravelli & Graham (1989) in Keasley, 2004).

A dominant QUALITATIVE method (QUAL), with less emphasis on quantitative (quan) strategies, was applied during this study. Figure 1.1, below, illustrates the matrix of the mixed-method research approach applied during this study.

Figure 1.1:   Mixed-methods design matrix

The   Research   Continuum

Mono method	Partially mixed	Fully mixed

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Time Order Decision

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Sequential

Paradigm   Dominant

Emphasis   Status   quan →   QUAL

Decision

Source: Adapted from Tashakkori and Teddlie (2003)

The three *qualitative* questions that will be focused on are:

Research sub-question 1

Why is distance education often seen as inferior to conventional education, when assessed in terms of access, delivery mode and output?

Research sub-question 2

What are the demographic and ethnic characteristics of students who choose distance education above conventional education, and to what extent does

the choice of media extend access of learning possibilities to students in both modes?

Research sub-question 3

To what extent does the quality of learning experience in distance education compare conventional education generally and, more specifically, at the University of Pretoria?

A literature study, document analysis, focus group interviews, personal interviews, structured and open-ended questionnaires were used as qualitative instruments in conducting an in-depth study to answer the questions posed above.

On the other hand, the *quantitative* approach was applied to the fourth research sub-question:

Research sub-question 4

What divergences are observable in the performance output rates of students from both research groups? What reasons that support the findings can be deduced from the research?

This afforded the researcher the opportunity to compare student achievements and output rates from both distance and conventional education, using chi-square tests to show a statistical significance between the two groups.

1.6.3 Research strategies and instruments for data collection

A brief description of the research strategies and instruments used to collect information and opinions, as well as the method used to analyse this information for this study is given below:

1.6.3.1 Overview of current trends in distance and conventional education

The overview of current trends in distance and conventional education was done through a literature study and document analysis.

1.6.3.2 Using inventories as sources of information

The inventories used were documents that were relevant to this study, which - on a macro-level - consisted of Government Policy documents and - on a micro-level - in-house University and Faculty documents. (The latter reflected the ethnicity of students involved in the research programme, their enrolment, throughput and output rates.)

1.6.3.3 Pilot application of the questionnaires and interview schedules

Initially, my intention was to administer one hundred (100) copies of the questionnaire to students, as an initial test of the validity and reliability of this questionnaire, to then improve it where necessary. However, only seventy (70) students were available, so thirty (30) copies were returned to me.

The feedback from this pilot application identified five ambiguously worded questions - which the researcher reworded. (It was important that the questions be well formulated and structured, as the questionnaire was to be the main tool for sourcing my research data - it would have been an enormous task to have a separate in-depth interview with the participants in the study.)

This procedure was also applied to the interview schedules that were piloted on two course presenters, two course administrators and two students who had dropped out of the study programme. (These pilot interviews were conducted to good effect, and the findings were subsequently incorporated with the data from interviews conducted later in the research programme.)

1.6.3.4 Final application of the questionnaires in the collection of data

Copies of the content-validated questionnaires were then given to the targeted Distance Education and Conventional Education students for completion. (See Chapter 5, Section 5.5 of this study.)

This questionnaire comprised open-ended and closed-ended questions, to encourage an in-depth, descriptive contribution by each participant and avoid receiving less helpful contributions that would weaken the final result of the research and only serve to swell participant numbers.

Of the 230 copies distributed to participating Distance Education students, 100 (43.47%) were returned to the researcher. Of the 45 copies distributed to participating Conventional Education students, 27 (60%) were returned to the researcher. (See Chapter 5, Section 5.3.1.3.1 of this study.)

1.6.3.5 Conducting in-depth interviews as data collection strategy

A semi-structured interview schedule, that allows for fluidity of feedback (Yin, 2003), was applied to target key participants in the study. This enabled me to develop a deeper understanding of the problem under review. This also encouraged detailed subject coverage, and the gathering of data along with explanatory evidence.

1.6.3.6 Conducting focus group interviews

A semi-structured interview schedule was also applied to focus groups, with the intention of achieving further depth in the information gathered. The researcher conducted these interviews with the module coordinators and tutors involved with distance education and conventional education separately, to enhance clarification on issues inherent to each group.

1.6.3.7 Field notes

Field notes were kept for reflexivity during the application of interviews to remind the researcher of salient information (which may not be possible to

remember after conducting too many interviews) and compare interview transcriptions with the notes that had been taken.

1.6.3.8   Research procedures

The procedure followed by this research is shown in the table below:

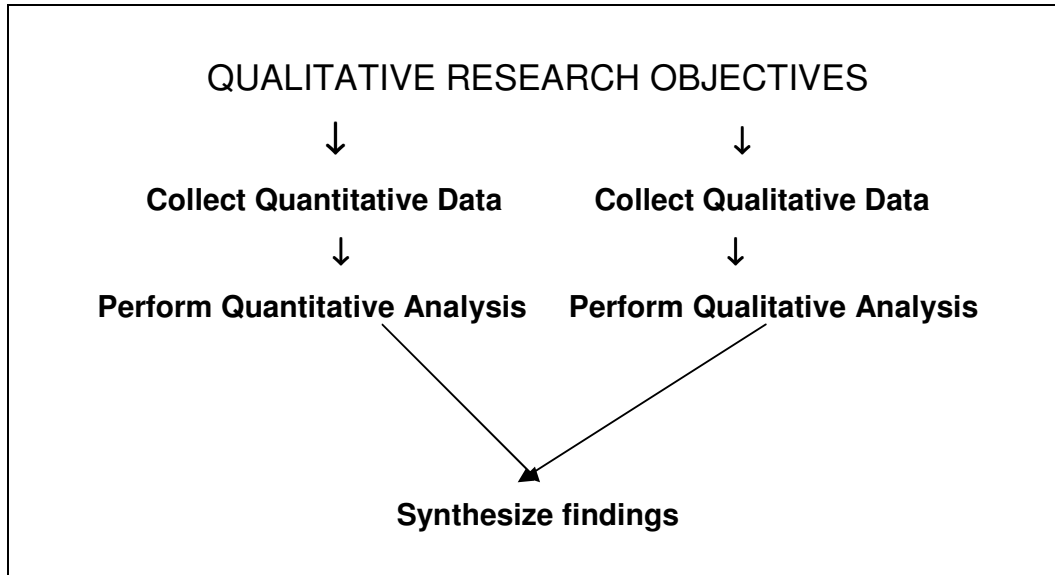**Table 1.1:   Research procedure followed during the investigation**

Types of information required	Data collecting strategy/ instrument.	Outcomes achieved
1. Overview of current trends in distance and conventional education in terms of access, delivery modes and output.	1. Literature study and documents analysis.	1. Current trends in good quality conventional education and best practices in distance education.
2. Opinions of teaching staff and administrators regarding the practices of distance and conventional education.	2. Personal interviews with focus groups, each lasting about 1 hour.	2. Qualitative, personal opinions related to the issues under discussion.
3. Opinions of Distance and Conventional Education students on the quality of their delivery mode(s) in relation to administration, finance, course materials, contact session, assessment and support.	3. Structured open-ended & closed-ended questionnaire.	3. Frequency distribution of respondents' opinions.
4. Assessment of the significant impact of the	4. Structured open-ended and closed-	4. Frequency distribution of

mode of delivery on the students in terms of satisfaction.	ended questionnaires.	respondents' opinions.
5. Opinions of both Distance and Conventional Education students who had discontinued their studies with the University of Pretoria.	5. One-on-one interviews conducted with each research programme participant, on the telephone.	5. Qualitative personal opinions on the issue under discussion.
6. Measurement of the significant statistical differences between students' achievements from both Distance and Conventional Education.	6. Application of statistical tests (Chi-square, Fisher's exact test and phi-coefficient) to data from the administration of the University of Pretoria.	6. The measurement of significant statistical differences between students' performances.
7. Comparison of the enrolments, output and drop-out rate of students from both distance and conventional education.	7. Documents from the administration of University of Pretoria.	7. Descriptive analysis of the data.

1.6.4 Data analysis

The mixed-method research approach was chosen to conduct this study and the data from the Distance and Conventional Education study programmes were analyzed separately – to accentuate their inherent natures. The diagram below shows what this process entailed:

Figure 1.2:   **Illustration of the application of the mixed-methods research approach applied during the Investigation**

QUALITATIVE RESEARCH OBJECTIVES

↓   ↓

Collect Quantitative Data   **Collect Qualitative Data**

↓   ↓

Perform Quantitative Analysis   **Perform Qualitative Analysis**

Synthesize findings

Source: Adapted from Tashakkori and Teddlie, (2003)

1.6.4.1   **Analysis of the data collected during the application of the qualitative research strategies**

Analysis of the collected data was dealt with in the following ways:

➢ The data gleaned from the completed questionnaires was analyzed by the Department of Statistics, from the University of Pretoria.

➢ The in-depth interviews were analyzed with the aid of computer software. This data was sorted into the following categories: naming, categorizing and labeling recurring issues and themes. (The software programme used was ATLAS.ti and details of these interviews may be accessed from the accompanying compact disc.)

➢ Lastly, a descriptive analysis of the enrolments, output and drop-out rate of students participating in both distance education and conventional education was done by comparing the available data (see Chapter 5 - Section 5.4 of this study).

1.6.4.2 **Analysis of the data collected during the application of the quantitative research strategies**

Inventories from the Department of Student Administration, from the University of Pretoria showing the comparison of student achievements and output rates were used. In dealing with these inventories, statistical tests (Chi-square, Phi-coefficient and Fisher's exact) will be applied to test the significant differences between rates of student performances (see Chapter 6 of this study). The hypothesis for these tests was:

> *Ho:* *There is no significant difference between the pass rates of distance learners as compared to the pass rates of contact students, who participated in the investigation.*

1.6.4.3 **Analysis of the data collected during the application of the mixed-method research strategies**

According to Onwuegbuzie and Teddlie (2003), the mixed-method analysis of data is defined as 'the use of quantitative and qualitative analytical techniques… at some stage beginning with the data collection process… from which interpretations are made'. Consequently, findings from the data collected from both distance and conventional education were integrated to achieve the aim of this study (see Chapter 8, Sections 8.4 and 8.5 of this study).

1.7 The significance of the study

The target group of this study is the Distance Education component of the University of Pretoria. However, the researcher hopes that the findings from this work will expose areas of strength and identify areas that need strengthening in both the distance and conventional educational study programmes of this institution.

However, the researcher is also aware that the findings of this study may apply to relevant higher teaching institutions throughout South Africa, and that, as such, they would glean valuable information from this exposition.

The researcher hopes the findings of this study will assist those involved in policy formulation, especially when focussing on distance education.

The researcher also hopes the findings of this study may go beyond the borders of South Africa, to assist in other African countries where distance education is an important means of furthering the education of the population.

Finally, other researchers will find this study useful, as further areas of study that emanated have been identified.

1.8 The limitations and delimitations of the study

The aim of this study is to discover possible reasons for the sceptical attitude that is persistently cast on distance education, to view it as the 'second-best' option for seeking higher learning. The researcher hopes findings from this study will expose reasons for this, and result in improved attitudes toward this form of education, making it generally more accepted (see Chapter 8, Section 8.6 of this study).

However, it must be stressed at this point, it is not the intention of this study to argue a case to indicate which form of education – distance or conventional - is the better one. And countries all over the world, especially the 'developing' countries such as are found in Africa, are faced with the reality that the only way of reaching their teeming population in order to meet the demand for higher learning is through distance education - this form of education is here to stay. Consequently, answers to questions that explore reasons for the prevailing scepticism must urgently be sought - even faculty members from the very institutions that support distance education study programmes are affected by this scepticism. This study may even expose the fact that there is no foundation for such an attitude at all.

The researcher is aware that the practices which govern the administration of Distance Education at the University of Pretoria follow guidelines that reflect the underlying philosophy toward education adopted by this institution. The researcher is also aware that this study may highlight certain practices at this

university that may not apply to other institutions also offering both distance and conventional education study programmes. Nevertheless, such institutions should be able to adapt findings of this study, to suit their prevailing conditions and situations.

Lastly, it is important to note this study cannot provide all the answers to the many questions to be raised on this subject - it is merely an attempt to fill some of the gaps already identified and indicate their possible solution.

1.9   Clarification of terms and concepts applicable to the study

Definitions of key terms that apply to this thesis are provided below. These working definitions were clarified during the literature review of such concepts, and key authors are, in certain cases, cited to substantiate such definitions. Full definitions are also explained in the appropriate literature chapters.

Distance Education: The form of education in which there is a geographical separation between the teacher and the student. According to Holmberg (1993:330), it 'covers the various forms of study at all levels which are not under the continuous, immediate supervision of tutors present with their students in lecture rooms or on the same premises, but which nevertheless benefit from the planning, guidance and tuition of tutorial organisation'.

Conventional Education: This is often referred to as the face-to-face system in which the students and the teacher meet. To buttress this is the definition of Baker, Frisbie and Patrick (1993) who state that such education takes place at a set time and in a predetermined location where both teacher and students meet most of the time.

Delivery Modes: Methods of transmitting knowledge to the students that include print, audio, video, and computers.

Distance Education Generations: This refers to the evolutionary and revolutionary patterns of change of the different delivery modes as they appear on the scene. Garrison (1993) clarifies it by explaining that the term describes the historical occurrence of the methods of delivery

Paradigm Shift: This depicts the changes taking place in higher education. According to Bair (1995) 'difficulties or anomalies begin to appear in the functioning of the existing paradigm which cannot be handled adequately and at the same time there is the existence of an alternative paradigm that will account for…and that offers real hope for solving the difficulties facing the current paradigm.'

Access: This refers to making education available to those whom it was formerly denied. Herman and Mandell (1999) see it as giving opportunities to those who have been denied education.

Output: According to the Oxford English Dictionary (2004), 'output' refers to 'the product of any industry … viewed quantitatively.'

Quality Assurance: This refers to 'all the actions taken to ensure that standards and procedures are adhered to and that delivered products or services meet performance requirements' (Bambooweb Dictionary, 2004).

Transactional Distance: This describes the inter-related relationship that exists between the teacher and the student during learning. According to Moore (1993), when defined in relation to interaction in an instructional programme, it is 'a function of dialogue, structure, and learner's autonomy' that describes 'the special nature of the relationship between the learner and the instructor during learning' (Stirling, 1997).

Dialogue: This depicts the interaction that occurs between the teacher and the student as they relate to each other in the course of teaching and learning. According to Moore (1996), this involves development as a result of response from both sides.

Structure: This refers to how a teaching programme is designed. It often reveals its flexibility or rigidity and the extent to which the learner will benefit from it.

Learner Autonomy: This depicts a shift of focus from the teacher to the learner in which the latter becomes the subject of his or her education.

Learner Support: This refers to the aspects of the system that respond to the individual needs of the learner, in order to enable him or her and the educational system interactively achieve their goals.

1.10 The Structure of the Research

Chapter One focuses on the orientation to this study and opens with a brief glimpse into the researcher's background which sums up the personal motivation for the study. It also exposes the research questions, aims and objectives, the significance of the study, its limitations and delimitations, and the structure of the research programme.

Chapter Two is a literature review, and involves an in-depth study of current literature in distance and conventional education in terms of access, delivery mode and output on a global level.

Chapter Three is an extension of the literature review, and looks at the history and the present state of distance and conventional education in South Africa and, in particular, at the University of Pretoria, Faculty of Education, Department of Education Management and Policy Studies.

Chapter Four focuses on the implications of the findings in Chapters Two and Three with regard to quality assurance issues (in relation to the three indices of assessment: access, delivery mode and output). This also extends to the state of quality assurance in South Africa and, in particular, the University of Pretoria bearing in mind, the paradigm shifts in higher education, and convergence of both forms of education.

Chapter Five focuses on the empirical study, research design and methodologies adopted for the study. The result of the analyses and interpretation of the data is revealed.

Chapters Six and **Seven** relate the findings of the quantitative and qualitative investigations performed respectively on distance and conventional education, to ascertain whether they complement, substitute, or subordinate each other.

Chapter Eight concludes this study by focusing on the assessment of discussions, conclusions and recommendations that may emanate from it.

The figure below gives a bird's view of all of the above:

Figure 1.3:   A diagrammatical representation of the order of events followed during this research study
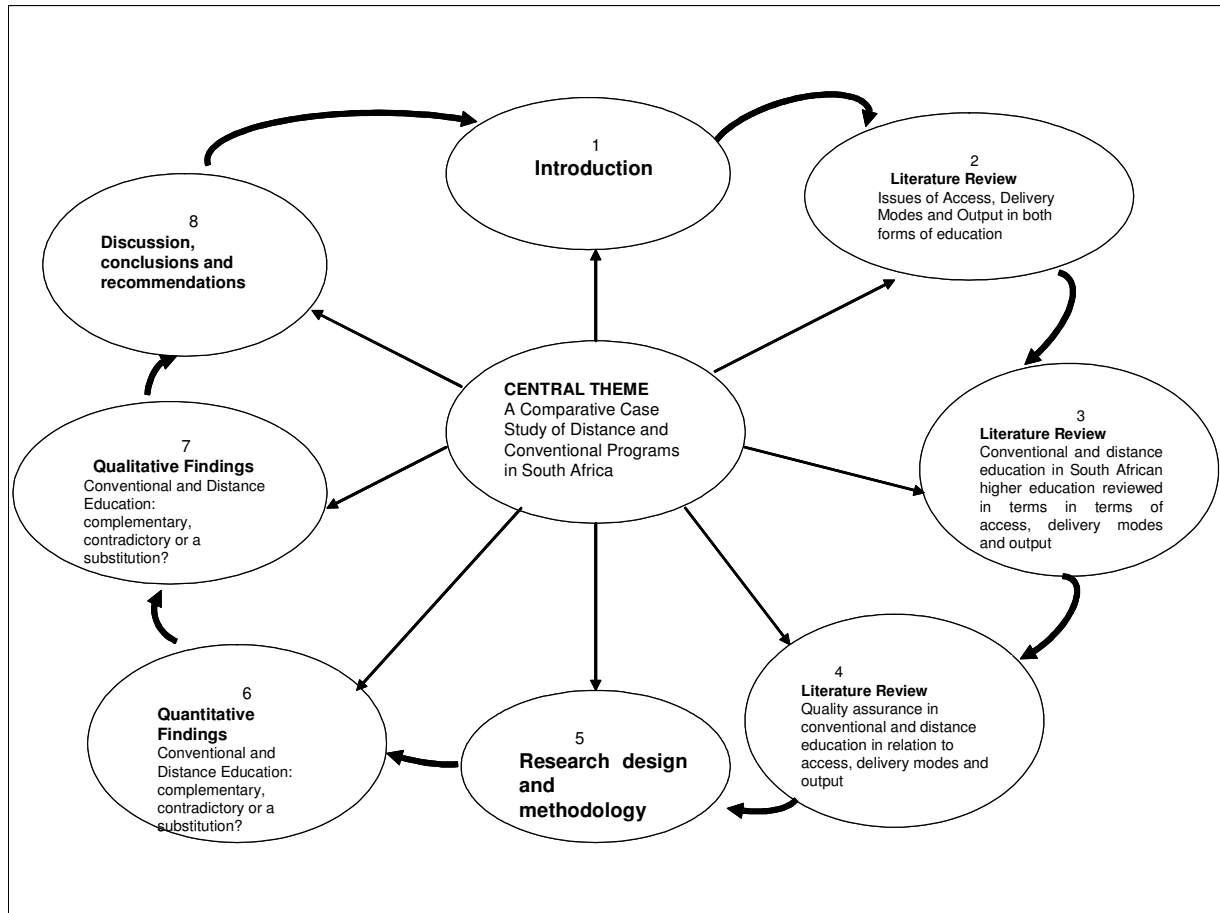
1.11 Summary

Chapter One introduced the background and the problem statement of this study. The research questions, aims and objectives of this study were then expounded upon. The significance of this study for those who may benefit was explained. The limitations and the delimitations of the study were also noted. A graphical display of the research process is found in Figure 1.3 that is found on page 27.

In Chapter Two an in-depth review is made of literature that is relevant to this study, which expound on current practices in distance and conventional education with regard to access, delivery mode and output on a global level.

CHAPTER 2

A LITERATURE REVIEW OF DISTANCE AND CONVENTIONAL EDUCATION REVIEWED IN TERMS OF ACCESS, DELIVERY AND OUTPUT IN HIGHER EDUCATION

2.1   Introduction

Chapter Two exposes the review of literature that has been covered concerning the three indices under investigation in this study, namely: *Access*, *Delivery Mode* and *Output*, commencing with a selective elucidation and definition of *distance* and *conventional education*. These aspects become important in view of this being one of the gaps already identified in past comparative studies (See Section 1.2).

This chapter also provides a thorough explanation from review of different researchers' opinions regarding the practices of both these forms of education. It compares the efficiency of the two practices in terms of the three chosen indices, and an attempt is made to familiarise the reader with the advantages and disadvantages of both learning strategies. Attention is also drawn to the 'clientele' of both forms of education. Issues of quality and convergence are ever on the

researcher's mind, as all these aspects are discussed, including the implications of the literature findings of this study.

2.2 Conventional education

'A college is a place to which a young man is sent;
A university is a place to which he goes.'

Charles William Elliot (Shore, 1991:5)

2.2.1 The concept of conventional education

'The idea of a university' as expressing its essence and mission, has long preoccupied academics and policy makers (Guri-Rosenblit, 1999:1), and since its inception in the 11th Century it has changed in different places. In the words of Shore (1991:29-31), 'throughout history, each society has conceived of the university in different terms…a facet of the church…hotbeds of religious controversy…symbolism of the powerful and spiritual realm of book learning…representative of professional training, research and a place where one spends a few years before becoming credentialed and considered fit to hold an adult job'. According to (Pister, 1999:232), 'it provides facilities for faculty, students and staff through which implementation of the institution is carried out.' As a higher institution, it has survived for so long, because people believe in it (Barnett, 2000) and because it has not remained static.

In the words of Williams (2003:5), 'One common feature of universities over the centuries has been that they are communities of relatively clever people who at times have been idle, self-serving, decadent or corrupt, but their institutions have survived and, on the whole, prospered by staying ahead of the game'. According to Kumar (1997:29), 'Universities bring people together. They allow for a cross-fertilization of minds on a scale and in a manner not possible anywhere else in society'. Also in the words of Bates (1999:207), 'teaching, research and public service are the core functions of a university which still need to be served in a

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rapidly changing world'. Even though there is the question of whether, a university education leads to a reasonable and secure life, in the words of Smith and Webster (1997:29), 'it gives its recipient a start in life…without which, one cannot even start or only with great difficulty, and at great risk'. In addition to this, Moore and Kearsley (1996:1) refer to it as the 'ancient tutorial, in which a teacher and an individual learner meet at the same time and place…and the more familiar contemporary model of instruction in a classroom where a teacher talks to a group of learners, all together at the same time in the same place'.

All the above are few definitions of conventional education, and according to Baker, Frisbie and Patrick (1993), other definitions are not particularly different from these, though with different modes of operation for example the problem-based learning, residential instruction and face-to-face classroom are other terms for conventional education.

Concerning the future of the university, Pister (1999:236) submits that 'universities will continue to represent all three attributes of place, process and paradigm'. In the same vein, while writing from the idea of the university as a post-modern institution, Barnett (2002:21), explains that the university is now virtual, not because of the Internet (as this has only accentuated it), but in 'its loss of a defining centre' thus, 'it is no longer a site of knowledge as such, but rather, a site of knowledge possibilities'. Hence, various factors such as the demographic nature of the student body and technology, among others, have to some extent changed the conception of 'the university as a place'.

Similarly, Lewis (2002:6) identifies the demands of continuing stakeholders for accessible provision; increasing diversity of students in higher education, and in particular the involvement of new groups; recruitment pressures on institutions; the need to maintain quality and increasing resource constraints on higher education institutions'. In the same vein Pacific Crest (2004) stresses that universities today are changing their nature in order to adapt to the 'societal

factors such as changing student demographics for, example, large number of non-traditional students (many of those that have part-time/full-time jobs with family responsibilities), and technology'. Corroborating all the above, Peters (2000:10) explains that in most countries, universities are faced by unprecedented challenges of:

➢ Rapid technological and societal changes;
➢ Changes to educational paradigms;
➢ Volatile increases in the significance of distance education and open learning;
➢ The beginnings of digitization of learning and teaching;
➢ Chronic financial difficulties; and
➢ The quest for quality and steadily increasing industrialization, commercialization and globalization.

Finally, in agreement with Pister (1999:236), the researcher is of the opinion that the 'society will continue to place pressure on the academy to deal with the purposes and goals of higher education, driven about the cost of education, productivity of faculty and assessment of educational outcomes for graduates' irrespective of the mode of delivery.

2.2.2 Distinctive features of conventional education
From the above, the following can be identified as the distinctive features of the conventional education:

➢ It gives the idea of a geographical location (Hagel, 2000; Lewis, 2002) thus making the teacher and the student present most of the time;
➢ This the mode is synchronous in nature (Hagel, 2000);
➢ It serves as a catalyst for creating communities (Pister, 1999);
➢ This leads to the development of oral presentation skills and interpersonal skills as a result of high teacher/learner and learner/learner interaction;

- ➢ The normal conventional students proceed directly from secondary education and 'progress through the system in a lockstep fashion' (Powel, McGuire & Crawford, 1999:89);
- ➢ Selective admissions which vary all over the world (Wilkipedia, 2005); and
- ➢ The availability of drop-in services such as careers centres and the student support system.

2.2.3   Working definition of conventional education

From the foregoing, the working definition of conventional education, which the researcher has adopted for this study, is '*The mode of education in which the teacher and the learners often meet face-to-face at the same time and place'*.

2.2.4   The practices of conventional education

According to Selinger (2000:87), 'universities of any description are sources of learning communities…which have been traditionally associated with a physical location; a school, a college, a university, an evening class or a laboratory'. However, the modern modes of conventional education include 'collegiate university', 'research oriented university, and the modern 'multiversity' (Guri-Rosenblit, 1999). According to Wilkipedia (2004), 'a collegiate university is a university whose functions are divided between the central departments of the university and a number of colleges'. An example is the University of London, United Kingdom. Also, according to Sorimachi (2005), the 'research-oriented' university 'emphasizes advanced research and development, which promote the creation of [an] intellectually innovative society and set global standards'. Examples are Harvard University and Massachusetts Institute of Technology (MIT). In addition to the above, the Word Reference (2005) defines the 'multiversity' as 'a university system having several separate campuses and colleges, and research centres'.

However, they all give the idea of a geographical location drawing students and teachers from distant places together to learn and pursue knowledge in various

fields of study. On this, Lewis (2002:2) explains that, 'universities were designed as residential institutions to initiate young students into a distinctive social and learning experience'.

2.2.5 The achievements of conventional education

According to Peters (1989), conventional education is noted for its ability to retain students, direct interaction, learning groups, and teacher-centred instruction. Lending his voice in the debate, Burke (2002), states, 'The potential for learner-learner instruction is very high'. To this, Tsolakidis (2000) adds that this form of education is considered superior for the following reasons:

- ➢ It introduces the learner to a new environment - the school or academic environment that offers opportunities for socialisation, something that can be even more important than knowledge acquisition itself;
- ➢ It offers face-to-face interaction that seems to be non-substitutable;
- ➢ It allows the teacher to use his personal style in teaching;
- ➢ It offers to the learner the opportunity to participate in an organisation that stimulates hierarchical order of the society.

Thus, according to Pister (1999:232), 'through its academic and often residential structures, it is…a catalyst for the creation of communities, whether disciplinary, social or political in nature'.

2.2.6 The drawbacks and limitations of conventional education

Nevertheless, there has been strong scepticism about conventional education. In the words of Evans and Nation (2000:1), the conventional universities 'have often been characterized as conservative and reluctant to change'. Also, Garrison and Anderson (2000:24) opine that 'traditional universities are by their nature collegial, research focused and zealous defenders of their culture and traditions. As a result, they have been resistant to change'. Supporting this, Tsolakidis (2000) gives the following as some of the issues that have been raised against it:

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> ➢ The bad preparation of the teacher, his/her inexperience or his/her being in a bad mood;

> ➢ It 'was useless to some students because either they were physically absent or they were only physically present';

> ➢ 'It is questioned whether face-to-face teaching on its own is adequate to guarantee knowledge acquisition' as it is always complemented with asynchronous learning;

> ➢ Most educational systems agree that knowledge is gained if, in addition to teaching at school, work is done at home on individual basis, using educational material, which is prepared beforehand (essentially distance learning nature).

In support of this, Johnson et al. (2000:29) explain that its 'environments have been criticized because they encourage passive learning, ignore individual differences and needs of learners, and do not pay attention to problem solving, critical thinking, or other higher order thinking skills'. Buttressing this view, Garrison and Anderson (2000:24) lament, 'Lecture presentations to large number of students reduce opportunities for interaction and critical discourse'. Giving reasons for this, Laurillard (1993:108), stresses that 'the success of a lecture requires the lecturer to be aware of the capabilities of all the students and for all students to have a similar background'. Also, Jones (1996) laments that, 'the economic pressures and the tendency to open access in today's universities results in classes with large enrolments…In combination, these factors, make the lecture a particularly inappropriate teaching method'.

In addition, Daniel (1996:16-17) is of the opinion that 'the traditional campus-based model of teaching is under challenge because it is up to 50 percent more expensive than distance education and cannot meet the increasing demand for access to higher education'. Unfortunately, it has been stressed by Gordon (2005) that 'lecturers at traditional institutions have enormous licence to compromise standards by, for example, relying on the same yellowed lecture

notes, year after year, with groups of students who can hardly be expected to know what is out of date'. All the above has encouraged critics of conventional education to see it as unchangeable, inflexible, teacher-centred, and static (Fitzpatrick, 2001). Therefore, Pister (1999:232) states that 'this traditional model has never fitted all institutions completely and has been evolving steadily since the end of World War II'.

Considering the pros and cons of conventional education, one cannot but be tempted to consider its superiority over its distance counterpart. But, before one is lured into making this conclusion final, it is important to take a cursory look at the changing nature of society. Long has the university been forced to leave its ivory towers - of dictating to its students what they are to be to the society - for the reverse situation, has become the norm. With the changing demographic nature of students, as discussed earlier, and the modern necessity of paper qualifications for certain jobs and the level of family and social commitments, students fear leaving their jobs to study and also fear not having jobs to come back to upon completing their studies. These are just a few of the odds against the university remaining forever conventional. No wonder Shore (1991:33) foresees the university as 'having responsibilities to the future'. And this future, one can say, has no end in sight.

Finally, the researcher tends to agree with Braimoh (2003) that it is high time the university gave to the student and society what they require: continuous relevant education. According to Pister (1999), the traditional model has never fitted all institutions. Thus, is it possible to agree with Barnett (2000:100) that because the idea of the modern university has been not been addressed, the word *university* has become simply a term, and 'it is no longer a concept, standing for anything of substance'.

2.3 Distance education

2.3.1 Defining distance education

Distance Education is nothing new. It has a long history that can be traced through the millennia, and it established its roots as a form of instruction at least 150 years ago as a correspondence study (Guri-Rosenblit, 1999; Holmberg, 2001). In the words of the Council for Higher Education Accreditation (1999), it 'is an exciting component of postsecondary education, providing opportunities to expand the reach of education and change its impact'. It is now a worldwide phenomenon as enrolment for this delivery mode is increasing every year, and is now in vogue among many African universities, to meet the escalating demand for higher education (Braimoh, 2003). According to Srivastava (2002:1),

> *'In 1994, 68% of Canada's community colleges and 54% of their universities were offering distance education courses. Of those universities that had not adopted distance education, 94% planned to offer distance education courses within the next five years. Globally, United States dominated the distance education scene accounting for 76% of the courses being offered online. Canada accounted for 19%, Australia 3%, and other countries accounted for barely 2%. However, in India during the period 1975 to 2001, distance education increased from 2.6% to 20%. It is expected that there will be a 30 to 40% annual growth of the distance education system as opposed to only a 5 to 10% growth for the formal education system'.*

However, there are diverse designations of distance education in various languages, and even within the same language, which connote the meaning people attach to it. Though its former definitions were linked with its old delivery mode - correspondence (Baker, Frisbie & Patrick, 1993) - its mode has, however, shifted to teleconferencing and computer-based technology (Garrison, 1993).

The definitions of distance education vary (Perraton, 2000). For example, the United Kingdom's Quality Assurance Agency (QAA, 1999) - using the term *distance learning* - defines it as 'a way of providing higher education that involves the transfer to the student's location of the materials that form the main basis of study, rather than the student moving to the location of the resource provider'.

Also, the Commonwealth of Learning [COL] (2004) defines it as 'the delivery of learning or training for those who are separated mostly by time and space from those who are teaching or training them'. But, according to Holmberg (1993:330), this mode has been summed up as the form of education that 'covers the various forms of study at all levels which are not under the continuous, immediate supervision of tutors present with their students in lecture rooms or on the same premises, but which nevertheless benefit from the planning, guidance and tuition [and] of tutorial organisation'.

In order to reflect the evolutionary changes that are affecting distance education media, Rekkedal and Qvist-Eriksen (2003:1) have included the following:

➢ The use of computers and computer networks to unite teacher and learners and carry the content of the course
➢ The provision of two-way communication via computer networks so that the student may benefit from or even initiate dialogue (this distinguishes it from other uses of technology in education).

Moore and Kearsley (1996:1) lend their voice to this definition by stressing that distance education has as its fundamental concept the separation of students and teachers by distance and sometimes by time, which necessitates the introduction of 'an artificial communications medium that will deliver information and also provide a channel for interaction between the teacher and the students.'

However, it is also important to clarify what distance education is not. This becomes necessary as the term is used interchangeably with what it is not. For instance, Holmberg (1993:330), explains that there has existed for a long time opposing views of interchanging the word *distance education* with that of *open university*. Even though the usage is blurred today (Holmberg, 1995) and others distinguish between them (Guri-Rosenblit, 1999), the confusion still persists. According to Holmberg (2002:15), distance education is not open learning,

because the latter implies 'forms of study which refrain from all avoidable restrictions as to access, study time and methods…even though the approach may be suitable for it' - nor is it a 'technological extension of classroom teaching'.

Supporting this view, Rowntree (1992:32) explains that 'even though all open learning (even on-site) involves some degree of distance learning, not all distance learning involves much openness…' Also, UNESCO (2001:3), in an attempt to differentiate between the two, states that 'distance education has been defined as an educational process in which a significant proportion of the teaching is conducted by someone removed in space and/or time from the learner…while open learning is an organised educational activity, based on the use of teaching materials, in which constraints on study are minimised in terms either of access, or of time and place, pace, method of study, or any combination of these'. In addition to this, the Commonwealth of Learning [COL] (2004) explains that, 'open learning policies need not be part of a distance education system but are complementary to it'. Also, Bernard et al. (2004:381) explain that, 'it is not a medium of instruction, but instead makes use of media for delivery and communication'.

According to Nuan (1996:194-195), distance education among other core values, has the following:

➢ Powerful interaction processes between learners and teachers at a distance, which are valuable in their own right;
➢ Valuable educational planning which focus upon student learning and their openness to critical scrutiny;
➢ Distance education like other forms of education, values communicative competence between participants.

It is of interest to note that scholars in this particular field use various terms for the concept *distance education*. According to the Quality Assurance Agency for

Higher Education (QAA, 1999), 'there is considerable debate, nationally and internationally, about appropriate terminology, and a number of different terms are commonly used which refer to the same or similar sort of activity'. For example Rowntree (1992) uses the term *distance learning* because he believes that it covers all distance learning, as such learning extends to both industrial and professional training. On the other hand, Keegan (1990) prefers using the term *distance education* because it includes both distance learning and distance teaching. Holmberg (1995:3), shedding further light, suggests that the term *distance study* should be limited to denoting the activity of the students while *distance teaching* denotes that of the supporting organization, particularly its writers, editors and tutors. Bernard et al. (2004) also share this view.

2.3.2 Distinctive features of distance education

According to Holmberg (1993; 2001), irrespective of the term used for distance education, it can be deduced that its two elements are 'mediated subject-matter' and 'mediated interaction' between the learners and the instructors. However, it is of interest to note that most distance education scholars (Moore & Kearsley, 1996; Holmberg, 2001; Bernard et al. 2004) often cite the characteristics given by Keegan (1990) as the most comprehensive. Therefore, it becomes important to take a cursory look at the characteristics, which literature in this field often refers to. According to Keegan (1990:44), the following are its characteristics:

> ➢ The quasi-permanent separation of teacher and learner throughout the course;
> ➢ The influence of an educational organizing both in planning and preparation of learning materials and support services;
> ➢ The use of technical media-print, audio, video and computer;
> ➢ The provision of two-way communication to assist interaction;
> ➢ The quasi-permanent absence of a learning group throughout the length of the learning process so that people are usually taught as individuals and not in groups (sometimes with occasional meetings).

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However, as an addendum to the last characteristic, Keegan (1998:43) in a later work states that, distance education can be 'either individual-based provision or group-based provision'. This, Holmberg (2001:13) explains as having 'the possibility of non-contiguous group work by means of modern technology'. It should be noted that this is now becoming more the rule, especially when one takes the Open University (OU) tutor system into consideration.

Reinforcing some of the above, the Quality Assurance Agency for Higher Education [QAA] (2005), explains that 'physical proximity is not a requirement of study and programs made available through distance learning, all involve some degree of physical separation of the student (learner) from the institution responsible for providing the teaching and making the award'. Hence, Moore and Kearsley (1996) explain that, 'because of the *separation* that distinguishes distance education from other forms of education it becomes imperative to provide an artificial communications medium which will deliver information, and at the same time make room for interaction'. Also, the Commonwealth of Learning [COL] (2004) states that in this mode, 'the teaching is done with a variety of *mediating processes* used to transmit the content, to provide tuition and to conduct assessment or measure outcomes'. Thus, distance education has as its sole aim to provide an educational opportunity the same as what one obtains in the conventional classroom.

Another distinctive feature of distance education is the profile of the students involved. According to Peters (1998:13), they differ primarily in the following ways:

> ➢ Students will usually have a greater experience of life;
> ➢ Most of them bring considerable experience of working to academic courses, and this also has an effect on the ways in which they study, in particular when the studies and the professional experience cover the same field;

> ➢ Many of them come from backgrounds in which academic studies were not offered when they were younger, and they use distance education as a second chance;
>
> ➢ There are distance education students who want to reach a higher socio-economic status as a result of their experiences at work;
>
> ➢ Distance-learning students have more qualifications than students in traditional universities; and
>
> ➢ Studying at a relatively late age has in general a completely different function than with 19-25 year-old students because it fits into plans for life and life-cycles in a different way.

Several studies have been conducted to buttress these facts about distance learners. For example, Tucker (2003) while complementing the previous studies by Gillard-Cook (1997); Guernsey (1998); Ashby (2002), and Halsne and Gatta (2002) discovered that the majority of distance learners were female, older than twenty-five years of age, lived in the rural areas, had prior college experience, and had job responsibilities, among others.

Corroborating this, Lewis (2002) explains that forms of various distance education developed because the needs of certain groups of people were not being recognised and met by the conventional higher education. Explaining further, Lewis (2002) gives the list as including stay-at-home mothers, the disabled, prisoners, those with paid jobs, and even employers of labour…who are now much more likely to support their staff, not just in developing the skills immediately needed at work, but also on programs that build a general and continuing capacity to go on learning'. In the words of Tucker (2003:1), irrespective of its models, 'it is important to note that…distance education is not meant for everyone…as it appears to be in a unique position to serve diverse learners who cannot or will not participate in the traditional classroom setting'. Hence, it can be concluded that distance learners are a special group of people.

2.3.3   Working definition of distance education

From the above, distance education in this study is defined as '*the mode of delivery in which the teacher is separated from the learners, thereby necessitating the use of artificial communication that encourages interaction among teacher/learners and learners/learners*'.

2.3.4   The practices of distance education

According to Rowntree (1992) institutions can offer distance education courses with varying degrees of commitment and expertise. Buttressing this, the United Kingdom's Quality Assurance Agency (QAA, 1999), states that there exists 'great diversity in the large number of… actual and potential arrangements'. However, Mark (1990:16) choosing the term *distance learning*, develops a typology showing four different types of distance education programmes which are: Distance Learning Institutions, Consortium, Distance Learning Academic Unit and Distance Learning Program. As well, Moore and Kearsley (1996:2-4) explain the different levels of distance education as:

Levels of Distance Education:

➢ Distance Learning Program -
These are activities carried out in a conventional college, university, school system, or training department whose primary responsibilities include the traditional classroom…and it does not usually have its own faculty or administration.

➢ Distance Learning Unit -
This is a special and separate unit within a conventional college, university, or school system that is dedicated to distance learning activities…that has its administrative staff. This concept was first developed in Australia (Holmberg, 2001).

➢ Distance Learning Institution -

Its sole purpose is distance education…and such an institution will have a faculty and administrative staff whose duties are different from those at a traditional college, university, school system, or training department.

➢ Distance Learning Consortia -

'Consortia normally consist of two or more distance learning institutions or units who share in either the design or delivery of programs, or both. However, the course is based on the practices of the parent institution.'

Also, Peters (1998:15) gives the following operating mode within institutions:

Operation Modes of Distance Education:

➢ Single Mode -

University planned and developed exclusively for distance education.

➢ Dual Mode -

A traditional university that also provides distance teaching.

➢ Mixed Mode -

This is the process whereby a university provides several forms of studying parallel to one another and leaves it up to students to use these forms in accordance with their own needs and opportunities.

On the other hand, the Quality Assurance Agency (QAA, 1999) for higher education, in the United Kingdom, identifies some 'distinguishable aspects that are commonly found, under various labels' in distance education. However, 'they do not refer to different models of distance learning' and they may not be uniform. These are:

➢ Materials-based learning -

This refers to all the learning resource materials made available to the students by the providers, and these range from printed, audio or audio-visual material, experimental equipment and material on the World Wide Web and to other electronic or computer based resources. The methods for distributing materials include personal delivery to students by travelling teachers, despatch through post, distribution through electronic communication and personal collection by students from a distribution point.

➢ Programme components delivered by travelling teachers -

This refers to staff of the providing institution travelling on a periodic basis to the location of the students to deliver components of the programme. The functions may include initial orientation; delivery of learning materials; intensive teaching of the programme; tutorial support; student development and guidance; assessment and gathering feedback. These operations may be supported and supplemented by a local agent.

➢ Learning supported locally -

This involves the providing institution employing persons specifically to undertake certain defined support for the local support of students following the study programme.

➢ Learning support from the providing institution remotely from the student -

This is the defined support and specified components of teaching provided remotely for individual distant students by a tutor from a providing institution. Modes of information delivery may include postal correspondence in print or by audio or videocassette, telephone, email and the Internet. Also, it may include voice, video or computer-based conferencing.

Also, the South African Institute for Distance Education [SAIDE] (1996:85-86) identifies the following as components of a well-functioning distance education system: course design and development; counselling and support; quality assurance; and effectively managed distance learning.

Strengthening the above, the American Federation of Teachers [AFT] (2000:7-15) after a survey, recommends the following standards for good practice of distance education:

➢ Faculty must retain academic control;
➢ Faculty must be prepared to meet the special requirements of teaching at a distance;
➢ Course design should be shaped to the potentials of the medium;
➢ Students must fully understand course requirements and be prepared to succeed;
➢ Close personal interaction must be maintained;
➢ Class size should be set through normal faculty channels;
➢ Course should cover all material;
➢ Experimentation with a broad variety of subjects should be encouraged;
➢ Equivalent research opportunities must be provided;
➢ Student assessment should be comparable to the conventional mode;
➢ Equivalent advisement opportunities must be offered;
➢ Faculty should retain creative control over use and re-use of materials;
➢ Full undergraduate degree programs should include same-time same-place coursework; and
➢ Evaluation of distance coursework should be undertaken at all levels.

2.3.5 The achievements of distance education

Distance learning breaks the association of *learning* with *classroom*; thus, preparing students with skills for the self-directed continuing and recurrent

education which will be essential for their continuing professional development in a world of rapidly changing information and ideas (Johnston, 1997). According to Truman (1995), 'the shift from the perception that distance education serves the student stranded in the backwoods or desert is making room for the student just down the street with a harried schedule, family or social commitments, illness, disability or learning preference'. Hence, its learners are characterised by a strong sense of independence, appreciation of owning the direction of their inquiry, and an ability to shape and manage their studies (Cook, 1997; Barell, 1995). They are usually more mature, motivated, self-directed and self-confident (Tait and Mills, 1999:1; Holmberg, 2001; Rogers, 2000).

Also, Hellman (2003) identifies the following as some of its potential benefits: increase of access, flexibility, financial economy (great savings in the construction of universities and teachers' salaries.). Strengthening this, Bollag (2001) states that a report sponsored by UNESCO and the World Bank in 2000 'found that at the world's 10 biggest distance institutions, the majority of them in the Third World, the cost of education per student is on average, about one third the cost at traditional institutions in the same country'. However, Hellman (2003) has drawn attention to the fact that 'most calculations based on *per-student* costs fail to take drop-out rates into account'.

Still focusing on access, Dlamini (1998) explains that about 20% of qualified students are denied access to university education in Swaziland for lack of space on the conventional campus. Reason for this is not far-fetched. According to Lewis (2002:2), 'the full-time student experience was the norm and of highest status; part-time provision was of a second best; while the distance route was largely invisible (even though many thousands of students sought to prepare themselves by this mode)'. However, with the advent of distance education, Magagula and Ngwenya (2004) explain that distance education has enabled the anomaly in Swaziland to be greatly corrected, as several students have been catered for.

It will be a great injustice to this aspect of this study if mention is not made of the contributions of distance education to the teaching profession. According to Adekanmbi (c2004), 'an examination of the use of distance education in Africa tends to show its wide application in the area of teacher preparation' and its focus has been on 'Africa's basic problems of mass illiteracy, poverty, squalor and a general low level of development, which are not usually addressed by conventional education'. In support of this, Brown and Scase (1997:89) explain that, 'for virtually all employees the future consists of uncertainties and anxieties, and requires ability to cope with the unpredictable nature of the world of work'. According to UNESCO (2001:3):

> *'Distance education has been used to teach, support and develop teachers for many years. UNESCO was a pioneer through its UNRWA/UNESCO Institute of Education, which was training teachers for refugees forty years ago. While the success of programmes has varied, experience demonstrates that distance education can be used to enable teachers to learn and to gain qualifications.'*

Continuing on this, UNESCO (2001:2-3) explains that "First, some countries have used distance to provide a route to initial qualifications for significant numbers of teachers, both new entrants to teaching and experienced unqualified teachers'. Examples are the China Television Teachers College and the National Teachers' Institute in Nigeria.

Second, distance education is also being used to raise the skills, deepen the understanding and extend the knowledge of teachers. Examples are several programmes run by the Indira Ghandi National Open University in India and the University of South Africa.

Third, distance education can have a role in programmes of curriculum reform, which aim to change either the content or the process of education. For example, in Mongolia, radio and print are used across large distances to re-orient teachers to official changes in curriculum and teaching methods within a country in transition'.

Lastly, distance education has been used for teachers' career development.

2.3.6 The drawbacks of distance education

Even though distance education has many advantages, it is still plagued with many drawbacks. This delivery mode - especially as technology advances – 'has inspired hope and dismay, as well as excitement and fear' (Hellman, 2003). According to the American Federation of Teachers [AFT] (2000:5), sceptics of distance education practice cite the following concerns:

➢ Whether deep understanding of difficult material - beyond amassing facts – can occur in the absence of same-time same-place interaction;
➢ Whether distance education may be ineffective for certain types of subjects and students, leading to higher drop-out rates;
➢ Whether needed equipment, training and technical support is reaching distance education students and faculty; and
➢ Whether limitations on the availability of library and learning materials impair distance education courses.

Also, Hellman (2003) states that its drawbacks include 'cost and capital intensivity, time constraints and other pressures on faculty, isolation of students from instructors and peers, the difficulty of evaluating students that faculty members have never met, dropout rates which are higher than in conventional education and deskilling of teachers'. In no fewer words Truman (1995) explains that, 'obvious barriers to adopting and implementing distance education are money, equipment and staff…Poor teaching strategies are exaggerated in

distance teaching, and territorialism among states and institutions (where there is no strong centralized government)'. Others cite the following: technology (Murphy, 1995) and lack of skills in time management and discipline by the students (Sherry, 1996).

From the students' perspective, according to Keen (1999), a study conducted in 1999 by the Alberta Government on the *Study of Student Satisfaction* with Alberta's universities and university colleges reveal the following weaknesses:

- ➢ Oral presentation skills are not developed by distance education effectively as on campus;

- ➢ Interpersonal skills, such as conflict resolution, team building, leadership are much more developed in face-to-face situations;

- ➢ Students have less of a *broadening* experience since they are denied the opportunity of meeting diverse students face-to-face on campus; and

- ➢ Drop-in services, such as careers centres are mostly not available through distance education.

However, Eaton (2001:2) explains that, 'Distance education is in many ways a welcome phenomenon, even as it is creating challenges for and arousing concern among many in the higher education community … It holds enormous promise for enriching education, and focusing only on its negative aspects is a distortion'. In the same vein, Badat (2005:193) explains that, 'high-quality distance higher education can be immensely valuable, doing public and social good'.

2.4 Access, delivery modes and output in higher education

2.4.1 Introduction

According to Duderstadt (2002a), 'since knowledge has become not only the wealth of nations but the key to one's personal prosperity and quality of life, it has become the responsibility of democratic societies to provide their citizens with the education and training they need, throughout their lives, whenever, wherever, and however they desire it, at high quality and at an affordable cost'. This statement sums up what the researcher will be dealing with in this section. The researcher will undertake an in-depth study of the issues of *access*, *delivery mode* and *output* as they pertain to higher education. Past studies (Garrison, 1996; SAIDE, 1996; Perraton, 2000; Dhanarajan, 2001) have revealed that the delivery mode of a form of education and its quality are directly related to *access*, either positively or negatively. Related to this is the throughput rate of both forms of education.

2.4.2 Access in higher education

2.4.2.1 The concept of access

The issue of access is not new to debates on higher education. According to Shore (1991:24), the tiny colleges found in North America in the 1600's and 1700's reflected that at the medieval universities of England 'women and black slaves were…excluded…and relatively few of the poor were admitted'. However, all over the world, university education has moved from its former position of *elitism* to *massification*. For instance, according to Bollag (2001), most universities are creating or considering creating distance education branches. Also, in the Arab region, UNESCO (2003) explains that in 1950, there were only ten universities scattered across this region, however, this has increased to about 200, coupled with an unprecedented increase in enrolment. Commenting on this, Mohamed (2005:1) states that, 'this increase has resulted from a growing public demand for education, an enlarged population, and the governments'

commitments to making higher education as accessible as possible'. According to Smith and Webster (1997b:101-102), even though mass higher education has induced 'inflation of credentials', it has opened up opportunities for expansion and has eased entry barriers, 'enabling mature students to attempt higher education'. What then is meant by the term *Access*?

Various scholars have tried to define the term *access*, and it can generally be assumed to mean 'opening opportunities for people to attend college who were once excluded' (Herman & Mandell 1999:16; Holmberg, 2002:81). This exclusion depends on a number of reasons, such as inability to afford the cost and because circumstances do not permit them to attend full-time, which was previously the characteristic of conventional education. Equally, Holmberg (2002:81) sees it as giving a second-chance to its clients. The trend towards *massification* of higher education due to an increase in population, increased demand for skilled work and an increase in the political power of ordinary people has been given as the reason for increased access to learners (SAIDE, 1996:32; Braimoh, 2003:3).

In the words of Gourley (1999:85) factors such as 'economic necessity or democratic principle,…changes in the labour market accompanying a trend away from goods production to service, and a rise in educational requirements for jobs in key sectors of a developing global economy' all influence access. However, according to Smith and Webster, (1997a:12), there exists a paradox because 'we are seeing an increase [in] accessibility in higher education, but in parallel with this is a heightened competition for places at the top universities, a situation in which the most privileged are winning most of the awards and continues to seize the rewards when it comes to getting the jobs. We are seeing the coexistence of greater inclusion alongside greater exclusion'.

According to Cele and Brandt (c2005), there are various forms of access to teaching and learning which include: 'access to space; access to resources; access to knowledge, [which Jansen (2001) termed *epistemological access*];

access to skills and competency; access to dialogue; access to workplace education and access to feedback. These can be grouped into learner invitation (access, admission and placement) and learner hosting (academic provision, service and capacitation)'.

2.4.2.2   Perspectives on access in higher education

According to De Vuyst (1999:100), 'Education throughout the centuries has been a system controlled by the ruling groups in the society'. Gourley (1999:90) in agreement with this view stresses that universities have been for a long time 'the elite institutions – bearers of a particular canon and reproducers of a particular class or meritocracy' in the society. However, in the words of Pond (2002), 'it is only in the last hundred years that education has become more *democratized* and thus available to a much broader population…' However, the view of *elitism* is being discarded all over the world since the economic strength of a nation depends on how many of its citizens have access to quality education. In the words of Morley, Unterhalter and Gold (2003:57), 'enhancing access and participation has been a powerful policy objective throughout the Commonwealth. It is linked to economic rationales and those of democratization and social inclusion'. Also, Morley (2000) explains that in the policy discourse of the learning society, access to higher education is seen to have redemptive power as it promises social inclusion and cohesion as well as national prosperity. Hence, the term *mass higher education*.

However, according to Williams (2003:7), 'this term is problematic and critics of this term and practice believe' that it 'has undertones of [a] soulless production line (Fordism), tabloid journalism (Murdochism?), the Costa Brava (ClubMedism?), and Hamburger cuisine (McDonaldization)'. These days, students are being viewed more as *customers*. However, Fritzgerald (1996:12) advises that, 'Students are not simply consumers of education. They are also producers of it'. It is a known fact and an almost *acceptable* attitude all over the world that universities should be enterprising. This leaves at great risk students

whose parents cannot afford the course fees and those that have to *labour* to pay their way through a higher education study programme.

Nonetheless, according to William (2003), it is ironical that 'in contrast to some complaints about commodification, autonomous, enterprising universities competing in a mass market using appropriate technology may be the most effective way of avoiding standardized production line provision of academic services in the provision of mass higher education'. Regrettably, buttressing this are Cele and Bandt (c2005), who state that 'in spite of the agenda of the public good, it remains the reality that globalisation trends have turned higher education institutions into skills corporations and knowledge malls that have to contribute to the economic well-being of their societies …'

However, views on regarding the university as *going enterprise* differ. For instance, in strong terms, McNay (2003:20) describes the feelings of others about this idea by stating that, '… enterprise provokes…an image of shady villainy, a fifth column gnawing away at the basic values that define a university, a wolf masquerading as a milk-cow'. On the other hand, the question of income generation for universities may not really be the focus of universities in the developing world. According to Williams (2003:17), 'high fees inevitably benefit students from families who are able to pay them'. Buttressing this, the Council on Aid to Education (1997:11) citing the example of America, explains that:

> '[While] public support per student has just kept pace with inflation … real costs per student have grown by about 40% ... Until now, institutions have been paying for [these] rising costs by sharp tuition increases; however, such increases will shortly begin to keep Americans from pursuing higher education'.

While sounding a note of warning and citing the case of South Africa Subotzky (2001:107), laments that

> *'International thinking on higher education is dominated by trends and driving forces prevailing in the developed world. Under pressure from rapidly changing demands and limited capacity, less-industrialised countries (LICs) are inclined to adopt first-world approaches and models without sufficient critical analysis, which carries a substantial risk of unforeseen consequences'.*

Even though access to higher education has improved in a country such as South Africa, according to Scott (2003:41), 'the persistence of historical-educational disparities has been central to the under-performance of skewed patterns of access, participation and success'. Hence, there is the need to be cautious to not adopt methods that will hamper access even though it is the aim of the less-industrialised countries to not do so. In other words, there must be a way to increase access, while not losing credibility in the face of financial stinginess on the part of the government. Deviation from investing money into the higher education system and embracing 'higher education corporate management models' according to Cele and Bandt (c2005), has been widely critiqued as 'failing to advance the social justice agenda through education and training'.

Nonetheless, the enterprising university, according to McNay (2003:26-27), have the following benefits, among others:

➢ Enterprising approaches can enhance outreach to promote equity of access; and
➢ Equity approaches can moderate the elitism and exclusion that excellence may drift into.

On the other hand, it is ironical that in spite of the accusations levied against distance education, it has been accredited all over the world as having the capability to open up access to those previously denied. Shedding further light on this, Nuan (1996:195) explains that 'distance education has largely borrowed

from the language of social justice and equity; access, equity, educational opportunity, situational disadvantagement and gender-related barriers are all taken from the general discourse of education'. In an attempt to describe the nature of distance education, Nuan (1996:193) analyses *key values* (social and political) held by those who identify themselves as distance educators. One of these is that:

> *'Education by distance mode serves a political end. That is in addition to the purpose inherent in [the] curriculum that it conveys; its very existence is directed towards increasing access to education. Distance education is unavoidably connected to the issues of social justice, involving equity for groups and personal liberation for individuals'.*

This is strongly connected to the fact that education is regarded as a right of the citizens of a state.

Nevertheless, there are many implications for widening access. According to Singh (2001), the ratio of educator to students often increases immensely without corresponding finances. This invariably affects the performance of students who drop out of the system in large numbers thus forfeiting the essence of access. Also, citing the case of Britain, Lewis (2002) has predicted that opening up access to previously disadvantaged and under-represented groups in the United Kingdom will lead to the following challenges:

➢ Curriculum development to create programs that appeal to these new student groups;
➢ Changes in the ways in which students learn and are assessed; and
➢ New ways of delivering the curriculum, particularly those using communications and information technology (C&IT).

While writing on the issue of technology, Hellman (2003) laments that

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'The digital divide that polarizes the technological haves and have-nots separate the wired world from those without access to this technology, and within the developing world, separate those who have the requisite levels of literacy and computer skills to make use of the Internet and other forms of communication from those who have not'.

However, it is interesting to observe that the issues raised above may not only be peculiar to Britain, but may be applicable to higher education in diverse environments. Thus, Matentjie (2001) and Cele and Brandt (c2005) have rightly observed that there is the need to consider putting some structures in place. These include among others: academic development, diagnostic assessment, effective learner support systems and personal support diagnostic.

2.4.3 Delivery modes in higher education

2.4.3.1   Introduction

In the words of Smith and Webster (1997b:103), even though there is much room for improvement, 'the past couple of decades have marked real advances in the knowledge and practice of teaching and learning'. These are as a result of 'clear course aims and objectives; articulated learning outcomes; explicit assessment linked to what students are expected to learn; course guides; students induction into information resources and study habits', to mention but a few. Hence, a cursory review will be taken at the modes of delivery in both forms of education.

2.4.3.2   Move from instructivism to constructivism

According to Pond (2002), early academic education was devoted almost exclusively to transmitting content or *knowledge*. The curriculum was finite and was 'expected to serve the learner for life'. Buttressing this, Shachar and Neumann (2003) state that, 'from time immemorial, teacher-lecturing/student-listening was the primary mode of traditional academic education. The delivery system for higher education has been a classroom setting with a professor (stage

on the stage), giving a lecture, and students listening, and writing notes'. This, according to Diaz and Bontenbal (2001) is termed generically as *Instructivism* and they explain that it 'asserts that knowledge – besides being independent of and external to the learner – flows in a mostly unidirectional path, proceeding from the knowledgeable authority (teacher), or from instructional content, to the passive learner'.

Commenting on the lecture method, Laurillard (1996:108) explains that the method has been legitimised by 'the eight hundred years of university tradition' and it thrives on 'the lecturer, knowing the capabilities of students very well, and on the students having very similar capabilities'. However, Laurillard (1996:108) continues that 'Lectures were defensible perhaps in the old university systems of selection of students on the basis of standardised entrance examinations, but more open access and modular courses make it most unlikely that a class of students will be sufficiently similar in background and capabilities to make lectures workable as a principal teaching method'.

In the same vein, learning theories have undergone serious changes; hence, the move towards *Constructivism*. According to Diaz and Bontenbal (2001), attention has shifted from teaching to learning, in which constructivism 'asserts that the learner constructs new knowledge through a process of relating information to prior knowledge and experience…teachers become guides rather than dispensers of knowledge'. In support of this, the Instructional Policy (Draft) of the University of Pretoria (UP, 2003:3) explains that learning has shifted from reproductive to productive; behaviourism to constructivism; teacher-centred to student-centred; teaching-centred to learning-centred; conveying content to facilitating learning; content-based to outcomes-based and content-based assessment to outcomes-based assessment'. On his part, Tapscott (1998:15-33) cites eight shifts in learning today:

➢ From linear to hypermedia.
➢ From instruction to construction and discovery.

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➢ From teacher-centred to learner-centred education.

➢ From absorbing material to learning how to navigate and how to learn.

➢ From school to lifelong learning.

➢ From one-size-fits-all to customized learning.

➢ From learning as torture as learning as fun.

➢ From the teacher as transmitter to the teacher as facilitator.

Buttressing this, research shows that students of today learn differently (Anson, 1999; McCormick, 1999), therefore classrooms need to become more learner-centred (Moersch, 1995; Boettcher, 1999; Sprague & Dede, 1999).

The table below shows a summary of the differences between old and new assumptions of learning:

Table 2.1:   Old versus new assumptions on learning

Old	New
1. People transfer learning with ease by learning abstract and decontextualized concept.	1. People transfer learning with difficulty, needing both content and contextualized learning.
2. Learners are receivers of knowledge.	2. Learners are active constructors of knowledge.
3. Learning is behaviouristic and involves strengthening of stimulus and response.	3. Learning is cognitive and in a constant state of growth.
4. Learners are blank slates, ready to be filled with knowledge.	4. Learners bring their own needs and experiences to learning situations.
5. Skills and knowledge are acquired best, independent of context.	5. Skills and knowledge are best acquired with realistic contexts.
6. Rigid and unchallenged	6. Assessment must take more

assessment procedures.	realistic and holistic forms.

Source: (Garbinger, 1996:667).

According to Myers (2003) even though, instructivism has been labelled *rote memorization*, '*factory model teaching, producing automatons incapable of thinking for themselves* and *mere facts*, the debate on the efficacy of constructivism for all situations is still perpetuated. For instance, Sparrow, Sparrow and Swan (2000) argue that due to the large classes present in the university system and the focus which a powerful student-centred model demands, 'compromises and variations in emphasis between student-centred and teacher-centred strategies incorporating negotiated and non-negotiable content with flexible delivery modes may be a way forward'. Therefore, in strengthening this view, Peters (2000:12-13) suggests some changes for the university, among which are:

➢ Teaching must be made into an essential task of the university that is taken up in the first place by all university teachers;

➢ Because academic education and further education stretch over complete adult life, universities must admit and look after adults of all ages;

➢ Due to the increase in the number of students, and the impossibility of the traditional approach to cater for them, a different – and cheaper – teaching and learning system is necessary, which will enable many more people to obtain undergraduate and postgraduate education;

➢ In order to achieve the highest degree of flexibility and to be able to cope more easily with the different life situations of students…learning must be separated from prescribed locations and times; and

➢ Emphasis should be more on learning than teaching.

2.4.3.3 Delivery modes in conventional education

The delivery mode in the conventional education has been largely print-based - due to the lecture method adopted for teaching. According to Laurillard

(1993:109), 'print is easily the most important educational medium…because of its logistical rather than pedagogical advantages' and it has the key advantage of being 'controllable by the student'. However, 'it has the disadvantages of failing to be interactive, adaptive or reflective thereby necessitating *a number of design features* like 'learning objectives, in-text questions and activities, and self-assessment questions' (Pg 110). Nevertheless, according to Tsolakidis (2000:2), the conventional education has not been static as there 'is a constant evolution in its field, produced by various educational reforms', hence, the move towards the use of audiocassettes, audio-vision, television and video (Laurillard, 1993). Interestingly, the development of the Information Computer Technology (ICT), has led to better interactive and adaptive resources (See Section 2.4.3.2 for the description of these media).

Presently, there is the adaptation of multimedia resources in higher education. However, views on this differ.

2.4.3.4 Delivery modes in distance education

According to Bates (1993:213-214), media refers 'to the generic forms of communication associated with particular ways of representing knowledge' and in distance education, 'the most important four media are: text, audio, television and computing'. The modes of delivery have led to the term *generation* which has been used to denote their historical occurrence (Garrison, 1993; Garrison & Archer, 2000; Holmberg 2000; Peters, 1998). The concept *three generations* was first identified, and used by Garrison in 1985, which he later developed in 1989 (Garrison & Archer, 2000). As said by Peters (1998:11), Garrison (1993) with the concept *generations*, has brought to light the two common features of distance education, namely the: 'high degree of accessibility and the quality of each interactive learning and teaching process'.

Generation one

The generation one refers to both the One-Way - ancillary media - and the Two-way communication - which Garrison (1993) depicts as correspondence - which includes: print (delivered through the mail); audio- and videocassettes, audio-graphics (which may also support two-way communication) examples of which are facsimile, slow-scan television, compressed tele-writing and video text; laser videodisc and broadcast (which includes radio and television). However, in view of the improvement in communication (Garrison & Archer, 2000), Garrison (1993) updated this definition to: *slow asynchronous (Generation 1) with individual instruction as its learning mode, delivered through the postal system, and its message types (two-way communication) include originally written language and still images; spoken language and moving images that are added by mailing of audio cassettes.*

According to Rowntree (1992) and Moore and Kearsley (1996), print is the most common form of medium presentation in distance education. In the words of Rowntree (1992:105), 'print has been the basis of distance learning, ever since Johann Gutenberg invented movable type in the 15th Century'. Also, Bates (1993: 213) explains that in spite of the fact that more influential institutions made use of other media, such as the television and audio, 'at the end of 1980's, the vast majority of distance education throughout the world was still primarily print-based'. The Generation One was, until very recently, the best-known form of distance education. According to Moore and Kearsley (1996:78-79), 'print materials are relatively inexpensive to develop and can be distributed easily via the public mail or private delivery services'. Supporting this view, Adekanmbi (c2004) writes that, 'The continued use of print in Africa (and many developed countries) has been due to its cheapness and easy adaptability' – it has as its characteristics the permission of great economies of scale through industrialized methods of producing standard course packages (Peters, 1998), and the individualization of learning (Garrison & Archer, 2000:181). However, Moore and Kearsley (1996) are of the opinion that this mode is passive.

Irrespective of its shortcomings, Adekanmbi (c2004) explains that 'there is a continued general romance with print…' and 'the transformation in its context is now made better in terms of better prepared texts, high quality material development processes and enhanced desktop development practices'. Buttressing this, UNESCO (2001:33) states that, 'printed materials continue to be a mainstay of distance learning provision, even for programmes like the United Kingdom Open University's PGCE which has a major ICT element. Print plays a variety of roles, either as lead or supporting medium, and is valued for its durability, convenience, low cost, familiarity and suitability for combining with a variety of other media'.

Furthermore, Paul (1990) is of the opinion that this mode of delivery helps *democratisation of education*, which the Open Polytechnic of New Zealand (2003) describes as 'education being made available, regardless of the constraints of time and place, to many adult learners who could not afford the time or expense of studying full-time, to many who have had to carry on working, and to many who could not travel to classes or who could not access technology or technological support services to support learning'.

Generation two

Next is the Synchronous generation, - which Garrison and Archer (2000) termed *Generation 2* - with individualized or group learning; and its delivery mechanism is the telecommunication system (both wired and wireless) and its message types (two-way communication) which can be: spoken language only; still images (supplemented by audio-graphics) and moving images (supplemented by video-conferencing); and various modes (some involving a student group using computer conferencing). *The synchronous generation is delivered through telecommunications systems combined with networked computers (usually) or fax machines. For its Message Types (two-way communication), it uses originally written language (originally through networked computers); still images (supplemented by graphics files and facsimile); spoken language (supplemented*

as audio files) and moving images (supplemented as video files). These establish the prediction by Bates (1993:213) of over a decade ago that 'by the year 2010, this will have changed in most developed countries…'

The Generation Two improves on the first by overcoming the 'tyranny of distance' because according to Taylor (2001),

> *'It involves the use of highly-developed and refined teaching-learning resources, including printed study guides, selected readings, videotapes, audiotapes, and computer-based courseware, including computer managed learning (CML), computer assisted learning (CAL), and interactive video (disk and tape)'.*

Also, Holmberg (1995:79) explains that recordings on audio and videocassettes '… have become a second very common medium' because students often feel that 'they provide a certain closeness to reality and have something of an enactive character'. Commenting on this, Moore and Kearsley (1996:83) state that they 'have become very convenient and cost-effective ways to disseminate instructional materials'. However, writing on the use of radio and television, Holmberg (1995) cautions that expectations of these media are often exaggerated as they do have their drawbacks, which include: the inability of students to reflect on what is being listened to without really losing track of the programme, their costs, and their use in areas that lack electricity. All these become issues - especially in the developing countries, as the majority of the recipients of distance education are from the rural areas.

Generation three

Interestingly, the *generation three* is described as being so attractive that it has posed a challenge to conventional (face-to-face) education, as it combines the strengths of both first and second generations (Garrison & Archer, 2000:182), and compensates for the short-comings of the first two by encouraging better group learning through recent developments in software (Bates, 1993). According

to Moore and Kearsley (1996), *these include teleconferencing, audio-conferencing, audio-graphics, two-way videoconferencing, computer conferencing and computer-based instruction.* A good example of audio-conferencing is the University of Wisconsin – Madison Extension's creation of the Education Telephone Network (ETN) in order to extend the campus to the entire state (Moore & Kearsley, 1996).

Generations four and five

However, it is worth noting that Taylor (2001a:200) brings a divergent view to this concept by separating the technologies and tagging them *generation four,* which is based on *on-line delivery over the Internet and promises to combine the benefits of higher quality CD-ROM, based on interactive multimedia (IMM)*, and the emerging *generation five* which involves the use of *automated response systems and intelligent object database* - a derivation of the fourth generation, based on the further exploitation of new technologies. In other words, this aims to capitalize on the features of the Internet and the Web [E-learning] (Taylor, 2002). According to Learning Circuits (2006), E-learning is a term that covers a wide set of applications and processes, such as Web-based learning and virtual classrooms among others, and is becoming irresistible to students, politicians and the business community (Taylor, 2002). Simultaneously, it has been predicted that this would 'reduce the tuition costs and thereby engender economies of scale capable of increasing access to education and training activities on a global scale' (Taylor, 2001b). A foreseen additional advantage is the improvement in the quality of service to students (Taylor, 2001b).

But, generation four and five drawbacks are not totally different from the second-generation two delivery mode, as they are too sophisticated to be used in developing countries of the world. According to Adekanmbi (c2004), challenges facing 'the use of new media include the cost; inadequate personnel to monitor them; and the seeming inability to replace damaged equipment'. Also to this list, Khan (1994:s.a.) adds 'educational conservatism, lack of manpower, the cargo

cult mentality, educational imperialism and lack of adequate co-operation among those who have it'.

Interestingly, Ljosa (1996:183) does not agree with the *popular notion* that tends 'to look at the development of distance education as a succession of generations of technologies and forms' because the term 'implies that other forms (generations) of distance education are obsolete and will not survive'. Though some technologies may become obsolete and the structures associated with them vanish (Ljosa, 1996), not all can become obsolete in the nearest future. Hence, it has been contended that the most common form of distance education at present and in the future is and will be a mix of ingredients from all generations. In other words, each generation does not fade out, but all are and will be interwoven.

Deductively, one cannot but agree with authors who stress that changes in the modes of delivery in distance education has greatly influenced the mode of delivery of conventional education - with positive effect. For instance, in many dual-mode universities, materials used for distance education are also being used for conventional education. This shows that institutions have the choice of media and Holmberg (1995:84) is of the opinion that 'in distance education the selection possibilities are often limited for financial and other reasons'.

However, in further considering the learning environment, Lewis (2002:11) advises higher education institutions to analyse their markets (both present and future), to consider the kind of learning environment needed to meet these needs cost-effectively…thereby not just focusing on only *technology*, but also on all other aspects of the learning environment, including:

> Curricular (defined not just in terms of content but also the methods by which students learn);

> ➢ Role of teachers and other staff (new roles and skills will be needed, new posts created, and the barriers between existing roles will be blurred as team-working is increasingly used;

> ➢ Physical and virtual learning environments (universities' estates will need adapting, with more open access learning or resources centres, more flexible spaces for learning, and arrangements for supporting students whose contact with campus are solely electronic; and

> ➢ Learning material in a range of media, serving a variety of student needs and going beyond mere transmission of information, with special consideration of the role of electronically transmitted material.

Therefore, according to Lewis (2002), there is the need to involve students more in their learning as the emphasis in higher education on curriculum content moves students into a passive role: absorbing information (the basis of the traditional lecture).

2.4.4 Output in higher education

2.4.4.1 Introduction

Output in higher education has diverse meanings. For this study, however, it refers to the *performances or outcomes of students* in their respective courses and *dropout rates* as these relate to both distance and conventional education. All over the world, these two aspects are understandable concerns for 'academicians, students, parents, and college administrators' (Leppel, 2002:433). According to the Open Polytechnic of New Zealand (2003) and Woodley (2004), reasons for these concerns include: market forces controlling educational system, funding and benchmarking. To this list, Leppel (2004:433) adds 'shrinking enrolment due to demographic composition'. Therefore, governments have shown serious commitments to this by making it clear that institutions/courses with high attrition rates will no longer receive funding.

However, it has been emphasised that the term *dropout* should not just be used derogatorily as *wastage*; *attrition* and *student mortality* (Woodley, 2004). This is because this word can be ambiguously used. Hence, Tinto (1975) is of the opinion that distinction should be made between *academic failures*; *voluntary withdrawal*; *transfer* and *delay*. Also, Fraser and Nieman (1995:20) use the terms: *draw backs* to describe students 'who begin with their studies but abandon them after the first attempts'; *non-starters* as those 'who enrol, but fail to take up their studies in practice'; and *failures* as those 'who eventually fail the final examination'. Other expressions for the term in research include: *withdrawal*; *abandonment* or *discontinuation*; *persistence/completion* and *retention* (Open Polytechnic of New Zealand, 2003). Giving reason for this caution, Tinto (1975:90) explains that the results of these are 'seemingly contradictory findings'. While Peters (1992) explains that those dropouts from the system often re-register at a later stage.

Ironically, research (Leppel, 2004:438) has established there is a connection between the performances of students and their attrition rates as these 'are influenced by many of the same variables'. Therefore, discussion in this section will portray this, as student output is investigated in relation to both modes of delivery.

2.4.4.2   Output in conventional education

Literature abounds in support of the fact that output in terms of the performance of students and attrition rates are better in conventional education (Kirkwood, 1989; SAIDE, 1995, 1996; Perraton, 2000). For instance in South Africa, the success rate of conventional education in 2000 was put at 73%, as opposed to 58% in distance education (Subotzky, 2003). Nevertheless, the South Africa University Vice-Chancellors Association [SAUVCA, now Higher Education South Africa (HESA)] (2004) asserts that the low throughput rate is a national concern, even at residential universities, as data from the Department of Education (DoE, 2002b) reveals that of the 630 000 national student enrolment for the year 2000 –

2001, only 14% of the learners completed their studies. Lamenting this situation, Leppel (2002:433) explains that, 'it takes four students who leave prior to their sophomore year to produce as much tuition revenue as one student who stays for four years'.

Several variables affecting the persistent rates and academic success of conventional students have been researched. These include:

> ➢ Social and academic integration (Spady, 1970, 1971; Tinto, 1975, 1993 & 1997; Bean, 1980);
> ➢ Complex interplay of factors involved in the social and academic integration (Cabrera, Nora & Casteneda, 1993);
> ➢ Age (Grosset, 1991);
> ➢ Motivation (Talbot, 1990);
> ➢ Approach to studying (Meyer, 1990; McKenzie & Schweitzer, 2001);
> ➢ Academic literacy (Amos & Fischer, 1998);
> ➢ Time management (Lahmers & Zulauf, 2000);
> ➢ Peer culture (Gainen, 1995);
> ➢ Quality of teaching (Bartz & Miller, 1991);
> ➢ Student support structure (Kleemann, 1994);
> ➢ Race and ethnicity (Attinasi, 1989; Hu & St. John, 2001); and
> ➢ Financial factors (St. John, 1990; Long, 1998).

All the above, and more besides, have been found to have profound effects on persistent rates of students in higher education. While commenting on the unreliability of pre-enrolment factors to predict success in higher education, Fraser and Killen (2005) are of the opinion that 'the fact that so many post-enrolment factors can be important is one reason why previous academic success, particularly at school, is often not a strong predictor of success in higher education'.

However, Leppel (2004:434-435) comments that 'many studies on persistence are based on data from a single institution' hence, there is the need for 'a national-level data' gathering drive, to aid formulation of appropriate policies.

2.4.4.3 Output in distance education

Even though distance education is a welcome phenomenon (Eaton, 2001), according to Parker (1999:1), 'with the growth of distance education has come the problem of exceedingly high attrition rates', which Baath (1982) and Yule (1985) explain can be between 50% and 53%, while Carter (1996) gives the same as exceeding 40% in some institutions. In addition to this problem is the relatively high failure rate (Fraser & Nieman, 1995).

As this is cause for concern, various studies have been conducted on reasons for this prevailing situation. Scholars like Altmann & Armbasich (1982); Sweet (1986); Cooper (1990); Cooper (1990); Eisenberg & Dowsett (1990); Ehrman (1990); Astin (1991); Dille & Mezack (1991); Iwai & Churchill (1992); Killen, (1994); Powell & Woodley (1995); Kerka (1996); Martin (1996); Uba (1997); Parker (1999); Shin & Kim (1999); Morgan & Tam (1999); Fraser & Lombard (2002); The Open Polytechnic of New Zealand (2003) and Fraser & Killen (2005) have conducted research into this phenomenon. Variables such as gender, age, locus of control, grade point average, inappropriately designed studies, lack of formative assessment, student support system; the perceptions of lecturers and students; and mode of delivery have all been researched.

Various findings have resulted from this research, and these have been corroborative and, according to Tinto (1975:99-103), the following factors could be possible reasons for this phenomenon:

> ➢ Lack of academic ability;
> ➢ Certain personal characteristics such as impulsiveness, lack of emotional bonds and lack of flexibility;

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➢ Poor achievement at school;

➢ Lack of goal commitment and ambitious occupational aims;

➢ Poor academic integration;

➢ Poor social integration with other students, university teachers and administrative staff;

➢ Lack of contact with the university as an institution;

➢ Time passed between acquiring a university entry qualification and first registration;

➢ Professional and family obligations, and activities in the social, cultural and political spheres;

➢ Choice of wrong subjects; and

➢ In the case of younger students, the low socio-economic status of the parents and low interest in the student's education.

Along with the above, according to the Open Polytechnic of New Zealand (2003), is the 'low rate of entry and persistence among the socio-economically disadvantaged in tertiary education generally'. Hence, according to Yorke (1999:22) universities have been advised to make efforts to assist such 'students accommodate to the demands of higher education'.

While writing on students' performance, Fraser (1993:32) gives the following reasons for poor student's performance at distance teaching institutions:

➢ The application of face-to-face modes and models of instruction to distance teaching;

➢ Poor and even non-existent in-service training of lecturers in distance teaching and theory;

➢ The use of outdated distance and contact teaching strategies;

➢ The application of pedagogical instructional theory to adult education;

➢ The structuring of a distance teaching package according to the didactic principles which apply to contact teaching and not to distance teaching;

➢ The over-exposure of learners to content which enhances surface learning and inhibits a deep-level approach to learning;

➢ A lack of confidence in the ability to distinguish between relevant and irrelevant material, and the inadequacy of the text in guiding the student in such decision-making; and

➢ Poor knowledge of the theory underlying adult learning, and the lack of skills in applying the theory of practice.

Supplementing the above, Sherry (1996) gives the inability of students to take responsibility for their studies and the inability of institutions to take into consideration the learning preferences of students (Marshall, 1991; Sherry, 1996). Further, Galusha (1997), while explaining the factors that contribute to high attrition rates in distance education, gives the following, which are based on research attempts:

Student Barriers

➢ Insecurities about learning due to personal and school related issues;

➢ Perceived lack of feedback or contact with the teacher;

➢ Lack of support and services such as providing tutors, academic planners and schedulers, and technical assistance;

➢ Feelings of alienation and isolation; and

➢ Obtaining study materials and borrowing library books.

Faculty Barriers

➢ Lack of staff training in course development and technology;

➢ Lack of support by the faculty;

➢ The threat to tenure and human resource staffing;

➢ Respecting the academics of distant courses; and

➢ Teacher's acceptance of distance learning programmes.

Organizational Barriers

➢ Infrastructure and technology problems;

➢ Lack of organizational and administrative support;

➢ Funding;

➢ Lack of institutional leader's commitment; and

➢ Inadequate telecommunications facilities.

Course considerations

➢ Course standards;

➢ Curriculum development and support;

➢ Course content;

➢ Course pacing;

➢ Poor assessment of students' performance; and

➢ Poor quality of material.

Various studies (Sheets, 1992; Chou, 1994; Marrs, 1995; Bullen, 1996; Wood, 1996; Oaks, 1996; Galusha, 1997) have been conducted into all the above to verify and confirm their effects on students' performance. However, Parker (1999:2) while criticizing most research, is of the opinion that 'studies … [are] generally focused on a single variable or a limited combination of variables', and, while sifting out unimportant predictors in her study, discovered that 'a student's locus of control and source of financial assistance may act as predictors of their non-completion in distance education'.

Nevertheless, the good news is that guarding against these pitfalls, when preparing and effecting distance education programs, serves to reduce these barriers to learning – sometimes completely eradicating them. For instance, Fraser and Nieman (1995:132-135), recommend the following, which are outcomes of a research attempt:

➢ Teaching for diversity;

- ➢ Flexible administrative policy;
- ➢ Contributions of year mark to final promotion mark;
- ➢ Development of students' language proficiency (where required);
- ➢ Instructional media should have explanatory and exposing functions, and should be suitable;
- ➢ Quality subject structure and course design;
- ➢ Quality student support structure;
- ➢ Flexibility in student learning;
- ➢ The need for training of lecturers teaching at distance teaching institutions; and
- ➢ Creation of cooperative learning opportunities.

Also, McGivney (2003) identifies motivation, having a supportive family or partner and financial support as contributing factors to persistence.

Hence, it has been argued that in distance education high attrition rates, is not as a result of it being inferior to conventional education. Research (Kabal & Friedel, 1990; Souder, 1993; Freeman, 1995; Mortensen, 1995; Gubernick & Ebeling, 1997; McKissack, 1997; Sonner, 1999; Tucker, 2001) has been conducted into this issue and according to Tucker (2001), 'while distance education may not be superior to or better than traditional face-to-face education, it is just as good as traditional education'. However, such studies have been advised to be all embracing in their focus by not just paying attention to the performances of the students (Phipps & Merisotis, 1999).

In conclusion, Hellman (2003) advises that:

> 'If face-to-face instruction is a more effective way of reaching (and retaining) students, particularly the most marginalized, then planners at some point may have to set aside their romance with technological solutions and return to the basic task of building a corps of qualified and dedicated teachers who can reach those, according to signs we already see, who will inevitably be left behind in the computer revolution.'

But, on the other hand, would it not be better to discover methods of continued appropriate support, that no group with specialised needs be left to fall behind? Advancement in technology, which is influencing our whole way of life, waits for no one.

2.5   Issues of convergence in distance and conventional education

In the view of SAIDE (1996), the major difference between distance and conventional education is usually with regard to the delivery of the syllabus; conventional education takes place with the teacher being physically present for most of the time. However, it has been contended that the convergence between distance and conventional education has caused approaches to teaching distance students to have tremendous effect on approaches to teaching conventional students (Thompson, 1999; Harry & Perraton, 1999; Antony & Gnanam, 2004).

There is no gainsaying the fact that ICT has had and is still going to have a tremendous impact on the issue of convergence of higher education. In the words of Adekanmbi (c2004) 'a gradual merger of ways is being experienced in institutions, which have distance education units as well as students in the formal settings who are being allowed to use materials developed for Distance Education units; the involvement of a wider section of university and college staff in the writing, editing and general development of materials and in the modularization of programmes in the conventional departments'. According to King (2001:55), 'one clear consequence of the new technologies is that the range of teaching options available on and off campus, which have represented almost polar opposites, will blur substantially'. Furthermore, this has led to the use of the broad-based term *Distributed Learning*, which Antony and Gnanam (2004:144-145) have suggested 'very soon may replace the usage of the distance education because distance is too restrictive a concept'.

However, there are divergent views on the use of the term *convergence* and the meaning it conveys. For instance Badat (2005:189) is of the opinion that 'assertions that distance education and face-to-face methods used in education delivery are *blurring* as a consequence of technological developments are conceptually flawed. According to him (Badat, 2005), the added complexity of a few educational strategies using ICT that cannot be categorized simply as either distance or face-to-face is no reason to suppose that historically germane distinctions do not retain their validity. Therefore, in this section, attempts will be made to investigate through literature how ICT has impacted on the convergence of both distance and conventional education.

In the words of Smith and Webster (1997:99), gone are the days when 'the word *university* readily evokes an image of changeless tradition: ancient buildings and unworldly intellectuals surrounded by students whose chief interests are dining clubs, sports, and old school ties.' According to Barnett (2000:107), 'in an age of super complexity there can be no fixed borders in the university. Borders, boundaries and demarcations: these necessary elements of institutional and social life have perpetually to be on the move in the post-modern university'.

Badat (2005:188) explains that 'today, there is a wide diversity in higher education provision, with the revolution in ICT, especially facilitating the emergence of new modes of provision. Alongside the traditional so-called contact education or face-to-face education, distance education, and correspondence education are to be found what are described as open learning, multimedia education, online learning and e-learning'. Writing on the hybridisation of higher education, Lewis (2002:5) explains that, 'a number of pressures have challenged higher education to review their provision in the direction of greater openness' and these are:

> ➤ Continuing stakeholder demands for accessible provision;

➢ Increasing diversity of students in higher education, and in particular the involvement of new groups;

➢ Recruitment pressures on institutions

➢ Need to maintain quality; and

➢ Increasing resource constraints on higher education institutions.

Still, views on the driving factors of technology in education differ. For example, King (2003:2) is of the opinion that 'developments may well be driven by technologists and business interests, rather than educators'. According to Badat (2005:188), 'not infrequently, the champions provide good fodder for the critics because of the unfortunately grandiose and sometimes almost naïve claims they make on behalf of the new modes of provision'. Also, according to Kumar (1997:29), 'the function of teachers and university libraries is the most under threat in the information age. The personal quality of teaching is of course precious, and is one line of defence. But it is no longer as strong a line of defence as it used to be, in these days of large classes and mass education'.

Apart from the above, another issue raised according to Lewis (2002:6), is 'the ironical demand by students who are supposedly learning full-time, on campus … because full-time students are now behaving like part-time distance learners, funding their way through university to pay fees and living expenses'. Several case studies (examples of which are Lisewski, 1994; Harrigan & Wade, 1995; Perry, 1995; Whitehead, 1995; Perry & Simpson, 1996; Bashir, 1998) have been carried out, and according to Lewis (2002), they 'provide further analyses of these pressures and of the responses higher education institutions are developing in response'.

Already, Peters (1993), as cited by Powell, McGuire and Crawford (1999), has shown earlier concerns for the *new age* student which he referred to as the *generation three* student, and he predicted that they will be more democratic, 'having increased freedom of education/ training choice'. Thus they contrast two

student archetypes not necessarily due to *empirical exactness*, but because both 'have in the past informed, and continue currently to inform, education planning and decision-making across educational systems'. The older archetype is described in the table below:

Table 2.2:   Student archetypes

CHARACTERISTIC	CONVENTIONAL	NON-CONVENTIONAL
Age	Under 24 years	25 years and older
Labour-force participation	Not in the labour force	In the labour force
Life Roles	Student role is primary role	Student role is one of several competing life roles
Prior learning	Secondary-school education only	A variety of related formal and experiential learning
Need for credentials	Essential	May be important but not essential.
Time and place of Study	Able to study at institutionally set time and place	Constrained by locations, competing job, and family and community obligations.
Educational providers	Single institutions	Seek out multiple educational providers.
Financial support	Largely public	Largely private

Source: Powell, McGuire & Crawford (1999:90)

However, Wallace (1996) suggests the appearance of a *blurring* of the characteristics of both students. Commenting on this, Powell, McGuire and Crawford (1999:11) concur that this phenomenon has given rise to the *contemporary student*. Reasons given by them include:

> ➢ Conventional students delay their entry into higher education because they need to earn money in order to bear the cost of their education.
> ➢ Many [students] opt to remain working as they have other adult responsibilities.

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➢ Non-conventional students are 'driven by economic necessity to strive for programme credentials'.

Though contemporary students do bring some of the needs of the old student archetype into the learning situation, additionally, 'they bring different needs to the higher-education systems' – they challenge the *value added* to their education and *delivery methods* that serve the purpose. Therefore, the table below has been proposed as the summary of the characteristics of the contemporary student:

Table 2.3:   The contemporary student

Characteristics	Typical Profile
Age	18 years and older
Labour-force participation	Part-to full-time participation
Life role	Must balance competing work, family, community and study obligations
Need for credentials	Very important
Time and place of study	Constrained by locations, job, family and community and community obligations
Financial support	A combination of Public, private and employer support.
Programmatic needs	Largely student-and employer-driven.

Source: Powell, McGuire & Crawford (1999:90)

In conclusion, the researcher supports the opinion of Badat (2005) in believing that no amount of technological development can eradicate conventional education. And, in contrast to this, distance education too has come to stay. Therefore, it is necessary to recognise that both forms of education will cater for diverse groups in society – and, indeed, not for the same groups of people. As long as there is the younger generation, older people who – when younger – had been denied access to an education, those who want to advance in their careers

and the demand by employers of labour for skill improvement, distance education – irrespective of the form it takes – will always be relevant to society.

2.6   Implications of literature review findings on the study

From the literature review of the research and writings of various scholars, and the evidence of what can be seen, some facts can be deduced:

First, there is already a paradigm shift in the idea of the university being a place. As earlier presented in Section 2.2.1., it is now regarded as both 'a place and a process' (Pister, 1999). Hence, as argued by Barnett (2001), it can be concluded that it is no longer a site of knowledge, but a site of knowledge possibilities. Therein rests the case for distance education.

Second, according to Saba (2001), 'by [the] early 1970's there was considerable evidence that the medium of communication is not as much of a factor in distance learning as the quality of instruction…' Hence, the focus of this study, as earlier emphasised in Section 1, is not on which of the two modes is the better one, but how distance education be improved upon, where necessary. In other words, distance education is here to stay; rather, the focus is on what way greater quality can be built in to the program that will alleviate the misgiving attitude people feel toward it - despite the drawbacks and limitations identified in Section 2.3.5.

Third, is the social question of enabling a larger number of the population to gain access to an education, who due to one reason or another, are denied such access. According to Christensen (2003:6), 'current consensus is that higher education is in a state of crisis…as they are struggling to adapt to changes brought about by expanding globalization, increasing diversity in student populations, increasing market forces on educational systems, and continuous advancement in technology and artificial intelligence'. Strengthening this fact is Duderstadt (2002b:8), who states that, 'there are 30 million people in the world

today who are fully qualified to enter a university but for whom no university place is available. Within a decade there will be 100 million university-ready people'. Therefore, the question is: how will the university enable a larger number of the population to gain access to education without distance education? But more importantly, is the question of what quality of access will be given to students?

Lastly, it is expected that with the masses being given quality access to education, the problem of high attrition rates in distance education would, of necessity, have be attended to.

2.7   Summary

In this chapter, attempts have been made to analyse the concepts: distance education and conventional education as related to their distinctive features, theoretical paradigms, practices, achievements and drawbacks. Most importantly, a working definition was provided for each of these concepts as they impact this study. In addition to this, the current state of the three indices of assessment: access, delivery mode and output were clearly elucidated, including some of the divergent attitudes people have toward them. The *blurring* debate and its direct influence on higher education were discussed. Finally, the implications of the findings of this literature review were explained as they pertain to this study.

In conclusion, Chapter Three will focus on these indices of assessment as they relate to the South African higher education system.