

CHAPTER 5

RESEARCH DESIGN AND METHODOLOGY

5.1 Introduction

In Chapter Five, the research design adopted for this study is discussed and justified, revolving round the research paradigm and the data collection practices. The research methodology and the data analysis procedures are also explained. In addition to these, the validity, reliability and ethical issues are elucidated, as they apply to this study.

The research design chosen for this study is the pragmatic approach, in which both qualitative and the quantitative methods are applied. The reason for this decision is that similar studies are usually only quantitative in nature and, as earlier referred to in Chapter 1 they are criticised for being too narrow in their focus. It is also the researcher's belief that using both methods will complement the other's strengths and weaknesses. However, both methods were used with focus on the conceptual framework: Transactional Distance (Chapter 4, Section 4.3).

5.2 Research design in a paradigmatic context

5.2.1 Research paradigm

In the words of Guba (1990:17), a research paradigm refers to a ‘basic set of beliefs that guides action’. Reinforcing this, Bryman (2001:446) explains that, a paradigm is ‘a cluster of beliefs and dictates which for scientists in a particular discipline influence what should be studied, how research should be done, and how results should be interpreted’. Hence, this work has been guided by the researcher’s belief that both traditional paradigms – i.e. the qualitative and the quantitative approaches – can be combined to result in the mixed-method research approach (Bailey, 1994).

5.2.1.1 The qualitative approach applicable to the investigation

According to Bryman (2001:264) ‘qualitative research is a research strategy that usually emphasizes words rather than quantification’. Therefore, Cohen, Manion and Morrison (2000:106) citing (Lincoln & Guba, 1985; Bogdan & Biklen, 1992) explain that:

- The natural setting is the principal source of data;
- The data are descriptive;
- There is a concern for processes rather than simply with outcomes;
- Data are analysed inductively rather using prior categories;
- Data are presented in terms of the respondents rather than researchers;
- Seeing and reporting the situation through the eyes of participants;
- Respondent validation is important; and
- Catching meaning and intention are essential.

5.2.1.2 The quantitative approach as it applies to the investigation

On the other hand, Cresswell (2005:39) has described the quantitative approach as ‘a type of educational research in which the researcher decides what to study, asks specific, narrow questions, collects numeric (numbered) data from

participants, analyzes these numbers using statistics, and conducts the inquiry in an unbiased manner'. Mertens (1998:60) also explains that, 'most quantitative research is of two types: studies aimed at discovering causal or correlational relationships and descriptive studies that use quantitative data to describe a phenomenon'.

Therefore, Cresswell (2005:41) identifies its characteristics as the following:

- An emphasis on collecting and analysing information in the form of numbers;
- An emphasis on collecting scores that measure distinct attributes of individuals or organizations;
- An emphasis on the procedures of comparing groups or relating factors about individuals or groups in experiments, correlational studies, and surveys.

However, scholars (Mertens, 1998; Seale, 1999; Ritchie & Lewis, 2003; Tashakkori & Teddlie, 2003; Johnson & Onwuegbuzie, 2004; Keasley, 2004; Cresswell, 2005) have observed the development of the pragmatic approach in which the qualitative and quantitative paradigms are mixed.

5.2.1.3 The pragmatic approach as it applies to the investigation

The researcher's paradigmatic beliefs have led to selection of the mixed-methods approach to research for this study, in the belief that research methods can be merged, depending on their relevance to answering specific research questions. Describing the *mixed-method* 'as the third research paradigm in educational research' and as both 'important and useful'. Johnson and Onwuegbuzie (2004:14-17) define it as 'the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study'. However, views on this

differ. According to Bryman (2001:444), there are two major reasons for discouraging its use and these are:

- The idea that research methods carry epistemological commitments; and
- The idea that quantitative and qualitative researches are separate paradigms.

However, Punch (2005:240) is of the opinion that 'at a general level, the reasons for combining are to capitalize on the strengths of the two approaches and to compensate for the weaknesses of each approach'. Therefore, the researcher's aim is to combine both in a way that the two research methods will complement each other's strengths (Johnson & Turner, 2003).

In the mixed-methods approach, though, either of the two approaches may be given priority under the *Sequential Transformative Strategy*, yet the researcher's chosen dominant status is the QUALITATIVE method (QUAL) with less emphasis on the *quantitative* (quan) application. While differentiating among the sequential strategies of the mixed-method approach, Creswell (2003:216) writes that the *Sequential Transformative Strategy* adopted for this study differs from others because it 'has a theoretical perspective to guide the study'. The researcher's aim for this strategy is to employ the method that will best serve the theoretical perspective [conceptual framework] (Creswell, 2003) which in this case is the *Transactional Distance Theory (TDT)*. This has been discovered to be becoming increasingly relevant to explaining the quality issue with regard to higher education, regardless of the mode of delivery (Section 2.3.4). Therefore, both methods, in their sequence, have been described by Brannen (2005) as *addressing complementary aims*.

Lastly, the case study method, which has been described as 'essentially a research in depth rather than breadth' (Verma & Mallick, 1999:81), has been chosen to enable the researcher to have a detailed description of the issues at

hand (Creswell, 1998). Therefore this study essentially stemmed from the traditional *naturalism* of qualitative study, by which the researcher seeks to understand social reality on its own terms (Bryman, 2001), thereby placing less emphasis on the quantitative research strategy.

5.2.2 Data collection strategies

5.2.2.1 The use of a questionnaire to collect data

The questionnaire to be used for this study comprised open- and closed-ended questions – a mixed questionnaire (Johnson & Turner, 2003). According to Beins (2005), ‘the open-ended questions allow the respondent to provide a richer assortment of information because the responses are not structured ahead of time by the researcher’ while ‘the closed-ended questions provide response categories for the respondents to select from’. Contributing to this, Cohen, Manion and Morrison (2000:255) assert, ‘It is the open-ended responses that might contain the *gems* of information that otherwise might not have been caught in the questionnaire’. Further, it puts the responsibility for ownership of data much more firmly into the respondents’ hands. It also catches the authenticity, richness, depth of response, honesty and candour, which are the hallmarks of qualitative data (Cohen, Manion & Morrison, 2000).

This choice of questionnaire format was decided upon because some questions were designed to elicit fixed responses from the respondents – for example the biographical information – while the others were designed to give the respondents freedom to express themselves. All the respondents were learners from the Distance Education Unit of the University of Pretoria, the subject of this study.

5.2.2.2 Interviews

5.2.2.2.1 Use of one-to-one interviews to collect data

The one-to-one interview has been described as ‘a powerful method of data collection because it provides one-to-one interaction’ between the interviewer and the interviewee (Tashakkori & Teddlie. (1998:102). Also, Punch (2005:168) describes it as ‘a very good way of accessing people’s perceptions, meanings, and definitions of situations and constructions of reality’. However, the following have been cited by Oppenheim (2003) as its disadvantages: it is more expensive than a questionnaire and this cost factor affects all aspects of it and the problem of briefing the interviewee, who may have problems understanding the concept.

Nevertheless, this tool has to its advantage the following: its ability to allow an in-depth probe and the high response rate (Oppenheim, 2003). Hence, the researcher was afforded the opportunity to interview: Administrators, the Instructional Designer, Module Coordinators, Course Presenters and certain students who – for one reason or the other – have discontinued their studies. These participants were chosen from among the employees and students of University of Pretoria, from both Distance and Conventional Education study programmes.

5.2.2.2.2 Use of telephone interviews to collect data

The telephone interview is also a way of conducting interviews. However, it is characterised by lack of direct contact – one of the positive attributes of the one-to-one interview strategy. But making a strong case for this method, Berg (2003) asserts, ‘researchers have found that, under certain circumstances, telephone interviews may provide not only an effective means for gathering data, but in some instances – owing to geographic locations – the only viable method’. Therefore, taking a cue from this, the researcher opted to use this mode of interview because most of the learners that have discontinued their studies on the BEd (Hons) programme – especially the learners in the distance education

study programme – stay in locations a great distance away from where the researcher lives.

In agreeing to the disadvantage already raised against this mode, Berg (2001:83) explains that the researcher has to depend solely on ‘verbal messages and cues’ in the absence of ‘visual cues’. Furthermore, Berg (2001:83) advises that the following should be guidelines for conducting a telephone interview:

- The researcher must establish legitimacy;
- He/She must convince the potential subject that it is important for them to take part in the research;
- He/She must carefully assure that the information obtained is sufficiently detailed to contribute meaningfully to the study.

5.2.2.2.3 Using focus group interviews to collect data

According to Morgan (1997:18), the focus group interview is a ‘carefully planned discussion designed to obtain perceptions in a defined area of interest in a permissive, non-threatening environment’. Buttressing this, Merton, Fiske, and Kendall (1990:135) assert that this form of interview can produce ‘a more diversified array of responses and afford a more extended basis...for designing systematic research on the situation in hand ...’ In addition to this, it permits ‘joint construction of meaning’ Bryman (2004:346). Commenting on this, Cohen, Manion and Morrison (2000:288) assert that, ‘it is from the *interaction* of the group that the data emerge’ because ‘the participants interact with each other rather than the interviewer, such that the views of the participants can emerge – the participants’ rather than the researcher’s agenda can predominate’. As a result of this, the role of the interviewer changes from that of an interviewer to that of a facilitator, moderator, monitor and recorder of the group interaction (Krueger, 2003; Punch, 2005).

Commenting on their nature, thereby accentuating their strengths and weaknesses, Morgan (1988:19) explains that, ‘their contrived nature is both their strength and their weakness: they are unnatural settings yet they are very focused on a particular issue and, therefore, will yield insights that might not otherwise have been available in a straightforward interview; they are economical on time, producing a large amount of data in a short period of time, but they tend to produce less data on interviews with the same number of individuals on a one-to-one basis’. Also, Kitzinger (1995) adds that ‘the downside of such group dynamics is that the articulation of group norms may silence [the] individual voice of dissent ... and the presence of other research participants also compromises the confidentiality of the research session’. Janis (1982) develops on this by adding ‘the groupthink phenomenon’, which makes it difficult to distinguish between the views of individuals from those of the group. Other researchers also add the pollution of an individual’s true response (Carey and Smith, 1990; Asbury, 1995; Carey, 1995). Therefore, care should be taken to give attention to minority opinions, as in all qualitative analysis (Kitzinger, 1995).

The groups chosen for the group focus interviews consisted of:

- Six Module Coordinators – though eight were invited to participate, to guard against those that might not be able to make the interview. (It had been recommended to the researcher that the group size be between 6 and 10 participants.); and
- Four tutors (Patton, 2002; Krueger, 2003).

Buttressing this, Cohen, Manion and Morrison (2000:288) comment that a group that is too small exerts a disproportionate effect, while when too large ‘the group becomes unwieldy and hard to manage; it fragments’.

For this research study, the choosing of the module coordinators was guided in that they were all involved in the coordination of all six modules, all of which the

participating learners have completed. The four tutors who were chosen work under similar circumstances. This, Kitzinger (1995) wittingly refers to as 'naturally occurring'. Likewise, the researcher sought the help of a colleague (who fulfilled the role of assistant moderator) to help with the recording of the interview, take notes throughout the discussion and gave the researcher feedback after the interview. This was done because it would have been impossible for the researcher to moderate and focus on the interview at the same time. According to Bryman (2004), this dividing of attention can become hazardous to the process of the interview, if not well managed.

The net result of this mode of interviewing led to getting multi-faceted responses from the participants who contributed from their wealth of experience.

5.2.2.3 Documents and document analyses

While referring to documentary data, which could be qualitative or quantitative in nature, Punch (2005) explains that these can be used in case studies in conjunction with other instruments of research. It can be noted that the documents collected for this study were both qualitative (e.g. policy documents and outcomes of quality assurance review) and quantitative in nature (records of performances of learners from both delivery modes in the BEd (Hons) study programme (the unit of analysis). These were obtained from the Department of Administration, of the University of Pretoria.

5.3 Research methodology applied during the investigation

5.3.1 Data collection procedures

5.3.1.1 Sampling

According to Tashakkori and Teddlie (1998:61), a sample is a 'unit of observation/analysis (who or what is being studied)' and it has been generally agreed upon that there are two major types of sampling in research, which are

probability and *purposive* sampling techniques (Bryman, 2004). Often, each technique is determined by the quantitative (probability sampling) or the qualitative (purposive sampling) nature of the study. However, Kemper, Stringfield and Teddlie (2003:277) are of the opinion that 'any study, whether single method or mixed methods can use any of a variety of sampling techniques to answer the research question under study'. Furthermore, Cohen, Manion and Morrison (2000:91) explain that 'judgements have to be made about four key factors in sampling: the sample size; the representativeness and parameters of the sample; access to the sample and the sampling strategy to be used'.

5.3.1.1.1 Purposive sampling

Therefore, in order to answer the questions raised by this study, purposive sampling has been selected because the study does not aim to generalize the findings (Teddlie & Tashakkori, 2003). Defining this method of sampling, Punch (2005:187) explains that 'it means sampling in a deliberate way, with some purposes or focus in mind' and in the words of Patton (1990:169), 'the logic and power of purposive sampling lies in selecting information-rich cases for study in-depth'. By asking some questions, Miles and Huberman (1994:34) give a checklist on sampling in qualitative research and these are:

- Is the sampling relevant to your conceptual frame and research questions?
- Will the phenomenon you are interested in appear?
- Does your plan enhance generalizability of your findings, through either conceptual power or representativeness?
- Can believable descriptions and explanations be produced - ones that are true to real life?
- Is the sampling plan feasible, in terms of time, money, access to people and your own work style?
- Is the sampling plan ethical, in terms of such issues as informed consent, potential benefits and risks, and the relationship with informants?

Buttressing this, Tashakkori and Teddlie (2003:279-280) assert that 'although purposive sampling techniques are commonly associated with qualitative methods, purposive sampling can be used within studies with either a qualitative or a quantitative'. Expatiating further, Cohen, Manion and Morrison (2000:102) describe this technique as 'targeting a particular group, in the full knowledge that it does not represent the wider population; it simply represents itself'.

For this study, the purposive sampling technique was applied to the BEd (Hons) Education Management, Law and Policy study programme, of the University of Pretoria. Reasons for this include the following:

- The university has the history of running dual-mode educational programmes;
- The programme is concurrently offered as a Distance and Conventional Education study programme;
- The university lays claim to quality and it is known for its standard of excellence; and
- Curiosity, to find out if same quality applies in both modes of delivery, bearing in mind the view that distance education is often regarded by many as a second-best option.

This research study was applied on specific groups of learners:

- Final-year students were targeted from the Conventional Education study programme, which is a 2-year programme;
- While learners from Study Blocks 2 to 4 from the Distance Education study programme, were targeted. (Block 2 refers to students not enrolling at the university for the first time.)

This was done to get the views of learners who were not new to this programme, and who had already at least completed some of the relevant modules.

5.3.1.2 Pilot application of the research instruments

In the words of Cohen, Manion and Morrison (2000:260), a pilot application has several functions, principally to increase the reliability, validity and practicability of the questionnaire. Writing on the piloting of a questionnaire, Cohen, Manion and Morrison (2000:260) list amongst others to:

- Check the clarity of the questionnaire items, instructions and layout;
- Gain feedback on the validity of the questionnaire items, the operationalization of the constructs and the purposes of the research;
- Eliminate ambiguities or difficulties in wording;
- Gain feedback on the type of question and its format;
- Check the time taken to complete the questionnaire;
- Check whether the questionnaire is too long or too short, too easy or too difficult, too unengaging; too threatening, too intrusive, too offensive;
- Identify redundant questions;
- Identify commonly misunderstood or non-completed items and
- Try out the coding/classification system for data analysis.

5.3.1.2.1 Pilot application of the questionnaire

The questionnaire was piloted on students from the BEd (Hons) Education Management, Law and Policy Distance Education study programme, who came to the university for the first contact session in 2005. These students were Block 2 students, who were registered at the university at least for the second time. (Block 1 students would not have had the experience needed for the research and therefore would not have been able to give much needed information.)

There were 109 students registered for this particular class, of which – on the day the questionnaire was piloted – 70 students were in attendance. Forty questionnaires were returned to the researcher, after the students had spent 30 minutes in answering the questions. This exercise highlighted five questions that were found to be ambiguously worded – posing two questions in one, without

properly allowing for this. These poorly worded questions were reworded – by separating the clashing items – with the assistance of the study supervisor and the statistician, whose advice was sought after the questionnaire items were determined.

5.3.1.2.2 Pilot application of one-on-one of the interview schedule

The researcher's plan was to pilot the interview schedule, as was done with the questionnaire. However, this schedule, fortunately, turned out to be valid from the start of the investigation. Therefore, the pilot interviews that had been conducted were subsequently accepted as *final interviews*, and these included: interviews conducted with students over the telephone, course presenters, and with the course administrators.

5.3.1.3 Final application of the data instruments

5.3.1.3.1 Final application of the questionnaires

Gaining access to students from the Conventional Education study programme proved to be problematic, as some the lecturers concerned with lecturing this group declined to allow the researcher access to relevant students, saying that the number of available contact hours they enjoy with their students is already severely limited. Therefore, sparing 30 minutes of their allotted teaching time would not be possible. However, the researcher gained access to the relevant students for this study with the assistance of the coordinator of the study programme for the Conventional Education Unit.

A total of 45 copies of the questionnaire were subsequently distributed among these students, of which 25 copies (56%) were returned – later it was discovered that one questionnaire was returned uncompleted. However, due to the small number of students involved in the B.Ed. (Hons.) Conventional Education study programme, the researcher visited the class again, to encourage the other 20 students – who had not completed and returned the questionnaire – to do so.

Three more copies were subsequently collected, bringing the total of completed questionnaires returned to 27 (60%).

Conversely, a week after the pilot application had been conducted with them, copies of the newly validated questionnaires were distributed among learners from the Distance Education study programme. For this final application, a total number of 230 copies of the questionnaire were distributed to students in the following way:

- Block 2 – 100 copies;
- Block 3 – 80 copies; and
- Block 4 – 50 copies.

The researcher subsequently collected a total of 100 (43.47%) completed questionnaires from these students. (On the same day 98 copies were collected and the following day 2 copies were collected with the assistance of the class leaders).

5.3.1.3.2 Final administration of one-to-one and focus group interviews

The interviews with the respondents were each 45 minutes to 1 hour in duration and was also recorded electronically, in agreement with suggestions by Heritage (1984:238) in that this:

- Helps to correct the natural limitations of our memories and the intuitive glosses that we might place on what people say in interviews;
- Allows more thorough examination of what people say;
- Permits repeated examinations of the interviewee's answers;
- Opens up the data to public scrutiny by other researchers;
- Therefore, helps to counter accusations that an analysis might have been influenced by a researcher's values and biases; and

- Allows the data to be reused in other ways from those intended by the original researcher.

A total number of 25 individual interviews were conducted with:

- One Policy maker, who happens to be the person in charge of the quality assurance of the whole faculty;
- Three Administrators, two of whom are responsible for dealing directly with both Distance and Conventional Education students, while one from the Distance Education Unit acts as a link between the administrative staff and the course presenters;
- One Instructional Designer (as students from the two modes of delivery use the same learning materials);
- Ten Course Presenters;
- Ten students who have discontinued their studies (Five from each mode of delivery);

A total number of two focus group interviews were conducted with:

- Four Tutors, who are in charge of some modules in both departments;
- Six Module Coordinators responsible for the first 6 modules applicable to this study.

Finally, all the respondents that participated in both the quantitative and qualitative research instruments were included in the sample because they were involved in the study program, fulfilling diverse roles. It is the researcher's hope that through careful application of the collected data, the wealth of knowledge to be extracted from their collective experiences will contribute to the quality in the outcome of the investigation.

5.3.1.3 Conducting the telephone interviews

While conducting the telephone interviews, the researcher adopted the following procedure:

- To first call each respondent to introduce her self and explain the purpose of the contact – this was to build rapport with them;
- Another date that was convenient for the student was agreed upon for each interview;
- Another call was made to each respondent, as a reminder on the appointment; and
- In the meantime, the researcher prepared an electronic device to record each telephone interview – for review purposes;
- The interview was conducted, as per appointment;
- Lastly, each respondent was again called and the researcher expressed her appreciation for their time and input.

5.3.1.4 Keeping field notes

The researcher kept field notes, to aid in recording observations and reflections perceived during the data collection period. For instance, on 6 March 2006, after my interview with a course presenter, the following note – of a moment that was not part of the electronically recorded interview – was recorded:

'We reflected together on the need for the university to change the time of exams for distance education students because they are mostly teachers, who are busy towards the time of school exams, which happens to clash with the university's exam's time-table. She feels very strongly about this.'

The field notes aided the researcher to reflect deeply on the issues that emanated from these interviews, which led to further interviews with the respondents. The field notes were recorded and saved in the *memo* unit of the Computer Assisted Data Analysis Software (*Atlas.ti*), and can be accessed on the CD-ROM that accompanies this thesis.

5.4 Data analysis procedures

It is known that the research design chosen for a particular study influences the data analysis procedures and for this study this is no different. Onwuegbuzie and Teddlie (2003:352-353) define the fundamental principle of the mixed-method analysis approach, which was chosen for this study, as ‘the use of quantitative and qualitative analytical techniques, either concurrently or sequentially, at some stage beginning with the data collection process, from which interpretations are made in either a parallel, an integrated, or an iterative manner’.

5.4.1 Data analysis of the response to the questionnaire

The quantitative approach was adopted for the questionnaires. However, the data received was first reduced to a form that could be analysed. According to Cohen, Manion and Morrison (2000:265), this is referred to as ‘Data reduction ... that generally consists of coding data in preparation for analysis ...’ Writing on this, Oppenheim (2003) defines *coding* as the ‘name given to the process of developing and using classifications for the answers to each question’. This, as the number of respondents was relatively small, the researcher did manually. The completed copies of the questionnaire were later taken to the statistician for computer analysis.

The questions posed were both closed and open-ended – the closed-ended questions had been pre-coded, while the open-ended questions were post-coded, as codes were developed only after the filling of the questionnaires (Cohen, Manion & Morrison, 2000).

5.4.2 Data analysis of the one-to-one and focus group interviews

This involved transcribing and analysing the data garnered from the interviews.

5.4.2.1 Transcribing of the one-to-one and focus group interviews

According to Kvale (1996:166) ‘the prefix *Trans* indicates a change of state or form; transcription is selective transformation’ hence, the interview data was transcribed from audiotape to text. However, Cohen, Manion and Morrison (2000:281), caution that ‘it is unrealistic to pretend that the data on transcripts are anything but already interpreted data’. Therefore, this led to the analysis of the transcribed text with the help of computer-assisted qualitative data analysis software, CAQDAS (*Atlas.ti*).

5.4.2.2 Analysing the transcribed interviews

5.4.2.2.1 Data analysis of the transcribed one-on-one interviews

To Rubin and Rubin (2005:201) ‘data analysis is the process of moving from raw interviews to evidence-based interpretations that are the foundation for published reports’ and ‘it entails classifying, comparing, weighing, and combining material from the interview to extract the meaning and implications, to reveal patterns, or to stitch together descriptions of events into a coherent narrative’. However, the researcher opted to use computer-assisted qualitative data analysis software (CAQDAS) because:

- It is compatible with the chosen analytic approach;
- It was easy to master – the researcher had used the software while working as a Research Assistant in the department;
- The programme (*Atlas.ti*) is continually upgraded by the company;
- It has good quality tutorials (Hardy and Bryman, 2004); and
- The department offered of the use of the technology to the researcher.

According to Hardy and Bryman (2004:532) ‘code-and-retrieve software focuses on relationships between codes and data’ and it is simply a way of doing things differently, but not necessarily better. But coming from a different school of

thought, Kelle (1998) sees it as being of great assistance to the qualitative researcher, who has to deal with large volume of generated data, which Miles and Huberman (1994) describes as data overload.

Using the software, according to Rubin and Rubin (2005), involves identifying relevant quotations, codes (that were formed from the questions posed), the concepts and themes interviewees frequently mentioned, the concepts and themes indirectly revealed, concepts and themes that emerge from comparing interviews and new concepts and themes that emerged from previous concepts and themes, and finding relationships among codes in order to answer the research questions.

Therefore, the interview responses were first coded. The codes assigned were based on some developed categories, which Miles and Huberman (1994) suggest should resemble the original data, to aid the work of the researcher. The coding also enabled the identification of themes that emerged from the data (Hardy & Bryman, 2004).

5.4.2.2.2 Data analysis of the focus group interviews

According to Kitzinger (1995) 'Analysing focus groups is basically the same as analysing any other qualitative self-report data', and both Catterall and Maclaran, (1997) have lamented the lack of attention to analysis in literature. However, Kitzinger (1994) and Catterall and Maclaran (1997) warn there is the need to be cautious when using the CAQDAS computer software. This is because researchers see the group interaction as an essential part of the interview, and the coding and the retrieval systems involved in a computer-assisted analysis may result in the loss of this vital communication process.

Therefore, Catterall and Maclaran (1997) have suggested the use of *on-screen* and *off-screen* coding, which involves combining computer-assisted analysis with memos to integrate 'the moving picture as well as the snapshots' (Catterall and

Maclaran (1997). For this reason field notes were taken during the course of the focus group interviews, which were later combined with the on-screen coding (*Atlas.ti*).

5.4.2.3 Memoing

According to Glaser (1978) cited by Miles and Huberman (1994:72) 'a memo is the theorizing write-up of ideas about codes and their relationships as they strike the analyst while coding...it can be a sentence, a paragraph or a few pages...it exhausts the analyst's momentary ideation based on data with perhaps a little conceptual elaboration'. This was an aspect of the software used for the analysis, and it was put to good use, as it gave further insight into the interview schedules. For instance, during the early interview sessions, a response from an interviewee prompted one of the questions later asked during the focus group interview with the module coordinators.

5.4.2.4 Document analyses

Document analyses with regards to this investigation concerned logical and quantitative analysis (which in this case encompassed the comparison of the performances of students, and the enrolment, throughput, and dropout rates). Inferential statistics – which included both chi-square and Fisher's exact tests – was applied to the performances of students from both modes of delivery, with the purpose of comparing their performances in terms of the pass and failure rates. On the other hand, descriptive analysis of student enrolment, throughput and dropout rate was done.

5.4.2.4.1 Statistical analysis of the empirical data

According to Borg and Gall (1979:428) a statistical test is 'used to determine whether two frequency distributions differ significantly from each other'. Two of such have been used in this study, and they are the chi-square and Fisher's exact tests, which Cohen, Manion and Morrison (2000), refer to as non-parametric tests. As indicated by Bryman (2004), the first is applied to

contingency tables, to establish how confident we can be that there is a relationship between two variables in the population. On the other hand, Cohen, Manion and Morrison (2000) and (Steyn, 2005) explain that the latter is useful only in a case where there is a two-by-two contingency table, that has made it applicable to only the tables that are of this nature in the study. Besides, the chi-square test can apply to all tables, and it can also be used when the sample size is small, which is the case of this study (Steyn, Smit, Du Toit & Strashem, 1994). Also, both tests have been combined in order to ascertain the reliability of the exact probabilities, and to strengthen the evidence of the statistically significant relationships between the two groups (Steyn, Smit, Du Toit & Strashem, 1994; Wikipedia, 2007).

Therefore, the level of significance was described as (α value is $p < 0.05$). Furthermore, both afforded the researcher the opportunity to provide a statement of probability of occurrence – the null hypothesis (Mertens, 1997) (see Chapter 6, Section 6.3.2). Lastly, the Phi coefficient was applied, to test for the practical significance (effect-size) of the rates compared ($w = 0.1$ small-effect; 0.3 medium effect; 0.5 large effect). According to Bryman (2004:235), the ‘Phi coefficient, is used for the analysis of the relationship between two dichotomous variables’. Thus, the effect sizes as applied to the statistical analysis indicated whether the relationship between the pass and the failure rates of the two student groups under investigation, was weak, moderate or strong (See Chapter 6, Section 6.3.2).

5.5 Enhancing the validity and reliability of the study

As earlier stated, this work is largely qualitative in nature. Hence, the researcher opted for a gradual process of validation, which was built into the work from the beginning. (An alternative work method may have only enabled evaluation of the research study at the end of the process, which would have prevented adjustment/alteration of the evaluation criteria before the end of the evaluation process. The researcher believes this would have rendered this study invalid and

unreliable.) According to Morse et al. (2000), there is the need to refocus the agenda for ensuring vigour by placing responsibility 'with the investigator rather than external judges of the completed product'. Therefore, the following elements were included in the research procedure to ensure the validity and the reliability of the study:

5.5.1 Validation of the study

According to Cohen, Manion and Morrison (2000:105), 'earlier versions of validity were based on the view that it was essentially a demonstration that a particular instrument... measures what it purports to measure; however, more recently validity has taken many forms'. Elaborating more on this statement, Cohen, Manion and Morrison (2000), stress that validity is required in both qualitative and quantitative studies, but it is a matter of degree rather than an absolute state. For instance in the quantitative method, there is a measure of standard error, which is inbuilt and has to be acknowledged, while the qualitative method, is faced with the subjectivity of the participants. However, Kvale (1995) explains that 'validation comes to depend upon the quality of craftsmanship in an investigation, which includes continually checking, questioning, and theoretically interpreting the findings'. All these were taken into consideration at every stage of this study, to ensure the overall validation of the instruments applied during the investigation.

5.5.1.1 Content validity

Even though there are different types of validity, of chief importance to this study is the content validity. In the words of Cohen, Manion and Morrison (2000:109), this form of validity stresses 'the instrument must show that it fairly and comprehensively covers the domain or items it purports to cover'. Supporting this view, Punch (2005:97) explains that it 'focuses on whether the full content of a conceptual definition is represented in the measure'. Hence, both the qualitative and quantitative instruments applied in this study were content validated.

5.5.1.1.1 Content validation of the interview schedule

According to Cohen, Manion and Morrison (2000:105), the content validation of qualitative research can be addressed 'through the honesty, depth, richness and scope of the data achieved, the participants approached, the extent of triangulation and the disinterestedness ... of the researcher'. Therefore, the interview schedules for administrators, module coordinators, tutors and students (who discontinued their studies with the university) were validated by ensuring the following:

- The selection of appropriate research methods and instruments in order to answer the questions raised;
- The question items of the interview (see Appendixes 4-12) schedules were based on relevant reviewed literature in Chapters 1, 2, 3 and 4. Amongst these were studies by Black (1992), Garrison (1996), Dhanarajan (1997), Saba (1998), Herman and Mandell (1999), Phipps (1999), Aluko (2000), Diaz (2000), Garrison and Anderson (2000), Johnson et al. (2000), Holmberg (2001), Lockee, Moore and Burton (2001), Makin (2001), Hellman (2003), Braimoh (2003), and Suen and Parkes (2004) which pointed out that distance education is a welcome relief in higher education because of its potential to give access to those that have been deprived educational opportunities. However, aspersion is still being cast on this mode of delivery due to the impression that a lower quality of education is offered and often leads to poor performances of students and higher attrition rates. Therefore, it becomes necessary to confirm the validity of this impression, which – in spite of landmark advances achieved in its delivery since its inception – still persists.
- The relevance of the choice of participants involved in the study, through whose eyes the data was received (see Section 5.3);

- The plentiful, in depth description of the data gathered that were substantiated with the findings from the literature reviewed on the phenomenon (see Chapters 2, 3, 4, 7 and Chapter 8, Section 8.4.2);
- The distancing of the researcher's personal views from the data collected; and
- The triangulation effected on the findings (see Section 5.5.2.1).

5.5.1.1.2 Content validation of the questionnaire

As said by Cohen, Manion and Morrison (2000:105), the content validation of a questionnaire might be improved through 'careful sampling, appropriate instrumentation and appropriate statistical treatment of the data'. Therefore, this was implemented through:

- The application of purposive sampling that involved the careful selection of the participants in the study to have a fair representation (see Section 5.3.1.1.1);
- Ensuring that the formulated questions were a fair representation of the wider issue under investigation (Cohen, Manion and Morrison 2000). (See the literature review chapters 2 – 4); and
- The application of relevant statistical treatment of the data (see Section 5.4 and Chapter 6).

Furthermore, the table below presents the process followed in selecting and developing questions for the questionnaire:

Table 5.1: Guidelines on question formulation for the questionnaire

QUESTIONS	REASONS	PROBING QUESTIONS
A. BIOGRAPHICAL QUESTIONS		
1. What are the characteristics of the students admitted into both programs?	To collect data on characteristics of students attending both modes of delivery.	a. Sex / Gender b. Age Range c. Campus / Learning Centre d. Conventional Student / DE e. Occupation f. Home Address / Venue g. Distance of home to university / Learning Centre
B. QUALITY OF ACCESS		
1. What are the qualifications of the students admitted into both programmes?	To determine which route students took to be admitted into the programme.	a. What is your highest qualification?
2. How are students without the minimum entry requirements admitted into the programme?	To assess what access students not meeting the minimum entry requirements have to learning opportunities.	a. Did you attend any remedial class before, during or after starting this programme in order to help you cope with your course?
3. What orientation (initial) program is in place for admitted students?	To investigate the level of preparedness given to students.	a. Was there any orientation programme provided by the university? b. Did you attend such programme? c. When was this? d. What activities were involved?
4. What student support services are available to students?	To investigate the availability and quality of student support services.	a. What non-instructional support does the university provide? b. Are there academic advising services available to you? c. Please give examples of such services that are available to you. d. How often do you make use of such services? e. In what other areas do you think you will need counselling?
5. What instructional technology (such as face-to-face, audio cassettes, video cassettes, computer technology, radio or television) is available to students and to what extent does	To ascertain the type of technology is/are available to students and its/their quality?	a. What instructional technology (such as face-to-face, audio cassettes, video cassettes, computer technology, radio or television) is available to you when you are studying, attending lectures or when doing an assignment? b. Why did you choose to follow a Conventional or a Distance Education programme? c. Do you think this mode of delivery (Conventional or Distance Education) suits you?

this aid learning?		d. Why? e. What impact will the completion of this programme have on your job?
QUALITY OF DELIVERY MODES		
1. How do students rate the study guides and courses in terms of attraction, learning objectives, motivation, interactivity, content, structure and meeting needs?	To determine the effectiveness of study guides in contributing to learning.	a. How is study guides distributed? b. How will you describe your study guides in terms of the following: - Relevance to personal objectives - Challenging / interesting or boring - Tone (conversational / unfriendly) - Language (simple / difficult / illustrative) - Exercises (adequate/ inadequate) c. Do they contain course goals, performance objectives, grading and evaluation criteria grading rubrics, and examples of good student work in the syllabus? d. Do they encourage analysis, synthesis, application and evaluation?
2. In what way do the course guides and readers accommodate different learning styles and learning preferences of the students?	To discover how well the study guides and the readers accommodate different learning styles and learning preferences of the students.	a. As a student, have you ever completed a learning style assessment questionnaire? b. Are you aware of your own learning preferences?
3. How easily are the residences accessible to DE students coming in for contact sessions?	To assess the availability of the residences to DE students during their contact sessions, and what their quality is.	a. Where do you stay during the contact sessions? b. If you stay on campus, how will you describe the residences?
4. What is the quality of the contact sessions in terms of organisation, preparation for students' resumption, attendance of lecturers, lecturer-student relationship and student-student relationship?	To evaluate the quality of the contact sessions for DE students in terms of organisation, preparation for students' resumption, attendance of lecturers and students, lecturer-student relationship, student-student relationship, and the use of the library facilities.	a. How often are you expected to attend classes / contact sessions? b. What means is available for ensuring students' attendance at contact sessions? c. Are lecturers available to teach students? d. Do you have the opportunity of meeting your lecturers? e. When and how often? f. How do you contact them when not on campus (as DE students)? g. How do you access the library when not on campus? h. On the other hand, how do you get books when not on campus? i. How do you meet with other students for learning when not on campus? j. Do the contact sessions meet your immediate needs and expectation?
QUALITY OF OUTPUT		

STUDENTS' INVOLVEMENT IN THE QUALITY ASSURANCE PROCESS; THEIR SATISFACTION WITH THE ENTIRE PROGRAMME AND REASONS; AND POSSIBLE SUGGESTIONS FOR IMPROVEMENT		
1. How do students rate the strategies used for their assessment?	To evaluate the strategies of assessment.	a. Is your assessment formative (done gradually) or summative (done once)? b. How long does it take for you to get feedback on your assessment? c. Is specific time tied to the submission of your assignments? d. What are lecturers' views on the method of assessment? e. How do you rate your lecturers' expectation of your performance? f. Are you satisfied with the method of your assessment? g. Suggestions?
2. What reasons can be given for students' high / low performance and dropout rates?	To proffer reasons for students' high / low performance and dropout rates.	a. What is your comment on the quality of teaching? b. Is the academic culture supportive of your learning? c. Please explain. d. What financial difficulties concerning your studies do you have? e. Is there any financial aid for your study? f. What is your view on this? g. What other commitments affect your studies? h. In what way does your job affect your studies? i. How well committed are you to your studies? Please explain. j. Do you feel you have made a right or wrong choice of programme? k. Give reasons. l. What are your expectations of this programme that are yet to be met? m. What advice (orientation) were you given upon admission? n. Do you think this mode of delivery (Distance Education) suits you? o. Why? p. What impact will the completion of this course have on your job?
STUDENTS' INVOLVEMENT IN THE QUALITY ASSURANCE PROCESS; THEIR SATISFACTION WITH THE ENTIRE PROGRAMME AND REASONS; AND POSSIBLE SUGGESTIONS FOR IMPROVEMENT		
1. How do students rate the performances of both on- and off-campus lecturers?	To determine the quality of both on- and off-campus lecturers involved in the learning experiences of the students.	a. Are there opportunities for staff-student appraisal? b. When last was this done? c. What format does this take? d. How do students rate this format? e. How do students rate both on-and off-campus lecturers?

2. What is the effectiveness of administration in relation to the programme?	To determine the effectiveness of administration in relation to the programme.	a. How do students rate the administrative staff? b. In what way do you think their attitude to their work affect your studies? c. How well does necessary information get to you? d. Please give examples of information passed to you? e. When and how do you contact the administrative staff? f. Is there a specific time allotted to this? g. Do you have names of members of staff to contact?
3. How satisfied are students with the quality of the programme under investigation? What are the reasons, and what possible suggestions do they have on how the programme can be improved?	To ascertain the satisfaction level of students, reasons for this, and what possible suggestions they may have on how the programme can be improved.	a. As a student, are you satisfied with the entire programme? Please give reasons. b. Kindly list five suggestions for the improvement of the programme?

See Appendix 4 for a copy of the questionnaire.

In order to arrive at the formulated questions in the questionnaire, strict attention was paid to the literature reviewed for this investigation, from which ideas for questions were gleaned. The questionnaire is divided into five sections, and validated in the following ways:

Firstly, in Section A (questions 1 - 9) the questions are designed to obtain biographical information from the student participants. According to scholars (Peters, 2000; Cloete & Bunting, 2001; Carnevale, 2002; Doug, 2002; Cloete, 2002; Randolph, 2003; Daves et al. 2004; Gordon, 2005; Labuschagne & Mashile, 2005; Mostert, 2006), adult students are often females, who have been previously denied education for some reason, and who are more involved with family and social commitments; are in their middle age; are mostly in the teaching profession or related fields; and are often attracted to a program due to its quality. However, it has been asserted that, due to paradigm shifts within higher education, there is already a *blurring* in the nature of students who partake of

distance and conventional education study programmes. Thus, the questions were designed to ascertain the extent the demographic characteristics of the students at this university correspond with the findings of literature covering this topic.

Secondly, in Section B (questions 10 – 23) the questions are designed to gather information on the quality of the access provided for students admitted into the BEd (Hons) study program at this university. Ideas for the formulation of these questions were borrowed from the works of Morrow (1993/4), Carnwell (1998), Herman and Mandell (1999), Stark and Warne (1999), Council for Adult and Experiential Learning [CAEL] (2000), Harrington, Laster, Stennet, and Carnwell (2001), Qurashi, Morton and Antosz (2002), Jansen (2004), Gamede (2005), HESA (2005), Mostert (2006), and Raphael (2006), who are all of the opinion that access goes beyond merely admitting students into a study programme, as it also involves access to non-instructional support, that they may complete the program and succeed on it. Therefore, these questions were meant to ascertain the extent to which the access given to students from the two educational modes could be defined as *true access*; and the extent to which such access differs between each delivery mode.

Thirdly, in Section C (questions 24 – 55) questions are formulated on teaching and instructional strategies, from ideas that were generated during the literature review of scholars like Chickering and Gamson (1991), Spady and Marshall (1991), Holmberg (1995), Perraton and Hulsmann (1998), Killen (2002), McKnight (2000), Goold and Rimmer (2000), Logan and Thomas (2002), Kelsey and D'souza (2004), Lomas (2004), Moore and Kearsley (2005), and Williams (2005). Findings from their works reveal that having structure supports in place; students' meeting with their lecturers for support; and being involved in staff-student appraisal always greatly affects the quality of the learning experiences of students, which then affects their performance and throughput rate.

Review of literature on these matters also presents the importance of other factors, like: the quality of the tutorial materials; identifying learners' learning styles and preferences, assessment method(s) adopted by the institution; contact sessions; library facilities and the quality of the administrative services. One of the objectives of this study is to compare the quality of the learning experiences for students from both delivery modes.

Fourthly, in Section D (questions 56 – 66) the questions focused on other possible factors that could affect the performance of students. The ideas for the formulation of these questions were gleaned from the works of Tinto (1975, 1993, 1997), Fraser and Nieman (1995), Galusha (1997), Uba (1997), Aluko (2000), Diaz (2000), Tresman (2002), Braimoh (2003), Givney (2003), Leppel (2004), HESA (2005), Louw (2005), who all confirm that the throughput rate of students studying through distance education is often lower than that of students studying through conventional education. However, they assert that there are reasons for this disparity. Of interest to note is that some of the scholars had identified gaps in past comparative studies that had failed to explain these divergences. Therefore, it became part of the focus of this study to investigate some of these factors, which include: availability of funds to distance education students, and whether the student made a correct choice of study programme in the first case.

The last section, Section E (questions 67-69) deals with student satisfaction levels with the study program as a whole, reasons for their impression, and possible suggestions to improve the programme. Ideas for the formulation of these questions were gleaned from past research efforts (Frazer, 1994; Green, 1994; Wolcott, 1995; Bornman, 2004; Lomas, 2004; Sahney, 2004; Sirvanci, 2004; Du Toit, 2005; Telford & Masson, 2005; Welch & Reed, 2005) which indicate that students are the protagonists in higher education. Therefore, they are in the best position to define quality in higher education, assess its quality, and bring valuable changes to the services rendered to them through their suggestions in these matters.

5.5.2 Reliability of the study

Gone are the days when reliability is the sole pre-requisite of quantitative research methodology (Brock-Utne, 1996; Cohen, Manion and Morrison 2000) – as it has also become an important aspect of qualitative research methodology. According to Punch (2005:95) ‘reliability is a central concept in measurement’ and ‘it basically means consistency’. Buttressing this Cohen, Manion and Morrison (2000:117) assert that, ‘reliability is essentially a synonym for consistency and replicability over time, over instruments and over groups of respondents’.

Therefore, this aspect was also built into this research study, by:

- Choosing the relevant unit of study, respondents and interviewees, and the instruments of data collection and data analysis;
- Piloting the questionnaire and interview schedules before their final application (Silverman, 1993);
- Ensuring a good rapport between the researcher and the interviewees; and
- Using structured questions for the interview schedules (Oppenheim, 1992).

Hence, it is this researcher’s opinion that if the same instruments were to be applied to the same respondents, given the same situation and analysing in the same way, the findings of that study will still be consistent with the findings of this study.

5.5.2.1 Triangulation and crystallization as parts of the research design process

According to Cresswell (2003:196) ‘triangulation is one of the means of validating the accuracy of findings’ in research, and it involves the use of ‘different data sources of information by examining evidence from the sources and using it to

build a coherent justification for themes'. Also in relation to this study, Cohen, Manion and Morrison (2000) assert that a major advantage of the mixed-methods analysis approach is that the researcher is able to compare and contrast the data from both methods, which furthermore builds the confidence of the researcher. Giving a summary of the definitions of the concept *triangulation*, Tobin and Begley (2004:394), write that 'all definitions of the different types of triangulation state that it involves *two or more* theories, methods, approaches, instruments or investigators providing data on [the same] topic'.

However, it has been advocated that the term *crystallization* should be used instead of *triangulation* in qualitative research (Janesick, 2000), yet according to Tobin and Begley (2004), little has been written about crystallization, therefore, they lament that the concept needs further clarification. Nevertheless, Richardson (1994:522) asserts, that 'crystallization provides us with a deepened, complex, partial, understanding of the topic. Paradoxically, we know more and doubt what we know'.

Therefore, given the context of this research study, which is the application of the mixed-methods analysis approach, the researcher submits that her choice of research design will enable the combining of both the quantitative and qualitative research methods (each with its instruments that could be regarded as varied sources of information – see Section 5.2.2), and to compare, for instance, the results of the completed questionnaires with those of the interviews, which, hopefully, would lead to in-depth descriptions of the findings of this investigation (see Chapters 6 and 7), synthesizing them with the emerged new body of knowledge (see Chapter 8). Buttressing this, Tobin and Begley (2004) explain that all these combined instruments 'can be so numerous as to constitute crystallization ...' that enables one to obtain a more complete picture of a complex phenomenon.

5.5.3 Transferability and generalizability of the study

According to Byrne (2001) *transferability* is used to judge the extent to which the findings of a study can be applied to other contexts, while – in the words of Polit and Hungler (1991:645) – *generalization* is the ‘degree to which findings can be generalized from the study sample to the entire population’. As earlier explained, in this mixed-methods comparative study, the qualitative component is more dominant. Therefore, Brannen (2005) advises that ‘it may be more appropriate to use the criteria by which such research is judged ...’

Unfortunately, one of the serious allegations levied against the qualitative inquiry, is its inability to generalise the findings from such research (Cohen, Manion & Morrison, 2000; Hardy & Bryman, 2004; Punch, 2005) mostly because of the small samples involved (Hamel, Dufour & Fortin, 1993; Yin, 1994) and because such studies are often difficult to replicate Myers (2000). Therefore, it may not be possible to generalize the findings from this study. For instance, one would be cautious in generalizing the findings as a ‘perfect reflection’ of the practices of both modes of delivery at the university or any other university with similar programmes.

However, Myers (2000) argues that even though partial generalizations may be possible to similar populations, however, it should not be the primary concern of qualitative research because of the following:

- The knowledge generated by such research is significant in its own right; and
- Problems related to sampling and generalizations may have little relevance to the goals of the study, as it is meant for understanding the issues raised in-depth.

Therefore, the researcher submits that the goals of a research methodology should determine the extent the studies involved could be generalized. This, Sato

(2000) while drawing upon Cornfield and Tukey (1956) and Shulman (1988) describes as building *an inferential bridge* by seeking overarching principles that apply to all cases, thereby generalizing the experiences of the participants involved in the investigation.

5.5.4 Limitations

Some of the challenges faced during this study were:

Firstly, the researcher experienced a problem with gaining access to the full-time students for the unit of study selected. (Lecturers were reluctant to allow time for this exercise, complaining that the contact hours allocated for teaching their modules were too few to be lost.)

Secondly, collecting the completed questionnaires from the full-time students was a challenge. (The students felt they had no spare time to complete the questionnaire, as their contact hours for lectures were specially arranged to accommodate the fact many of them also had full-time employment.)

Thirdly, the problem of arranging all the appointments for the many interviews that had to be conducted – this was easy in some cases, while it was almost impossible in other cases. (For instance, almost all the students that had discontinued their studies lived a great distance away from the researcher, who had to change the format of the interview schedule to accommodate conducting the interview over the telephone.)

Fourthly, despite using computer software to assist with the data analysis, the task of transcribing the data from all the interviews conducted for this research study was daunting, as each interview had to be transcribed verbatim. In addition to this, having used computer software to record the data, the researcher was not immune from being involved in the data analysis process.

Lastly, the researcher realised she had created too many codes and, during the coding process, this situation was corrected.

5.6 Ethical issues

The need to be sensitive to moral issues in research cannot be over-emphasized. According to Cohen, Manion and Morrison (2000:49) 'each stage in the research sequence, may be a potential source of ethical problems ...' however, ethical issues must be interpreted in the light of the research context and of other values at stake. Therefore, conscious effort was made to ensure fairness in the following areas:

5.6.1 Ethics during the data collection process

- The Head of the Distance Education Unit enabled the researcher to gain access to the Distance and Conventional Education study programme students. The first was arranged in writing, while the other was arranged verbally and the managers of both study programmes gave their approval for the conducting of this investigation. (See Appendix 1 for the copy of the letter);
- The informed consent of the student participants – for the questionnaire and interviews – was gained after the essence and potential benefits of the research study were explained to them. After the participants had completed the questionnaire, an individual appointment then had to be arranged for a later date and the need for using a tape recorder during these interviews was explained to them;
- Upon the request of the researcher, the Heads of Administration for the Distance and Conventional Education Units gave their permission that information on students that had withdrawn from the BEd (Hons) programme could be released, for use during the interview to be conducted with them over the telephone.

5.6.2 Ethics during the data analysis and interpretation processes

One of the challenges faced by any researcher when conducting a qualitative inquiry is the inability to distance his/her personal views from the study during analysis. However, during this process, care was taken to guard against this:

Firstly, the questionnaire data was edited before reducing the data. This was done in order to identify and eliminate errors discovered (Cohen, Manion & Morrison 2000).

Secondly, privacy, anonymity and the confidentiality of the respondents was maintained. For instance, respondents to the questionnaire were not required to supply their names, while pseudonyms instead of real names were used during the interviews (see Chapter 7).

5.6.3 Ethics during the process of writing and disseminating the research

Firstly, it is the researcher's intention to report exact findings and not falsify the data that will emerge from this study.

Secondly, the findings will be written in a simple language, which will easily be understood by readers. This will start with the procedure of the study, that is made explicit and transparent (Sato, 2000), which, hopefully, will ease the process of arriving at an in-depth description of the data.

Thirdly, it is the researcher's goal to make a report, containing a summary of the research findings of this study, available to the University of Pretoria – the custodian of the Distance Education Unit that was the subject of this study.

5.7 Summary

In Chapter Five, the research design and methodology to be used for this study was clarified, including the data analysis process. The ethical issues that affected the process of this study were also commented on.

In conclusion, Chapter Six will reveal the findings of this study with regard to quality, as it relates to the three chosen indices for this study, namely: *access*, *delivery* and *output*. The probable implications of these findings for Distance Education study methods are also considered.

CHAPTER 6

ANALYSIS AND INTERPRETATION OF THE QUANTITATIVE DATA

6.1 Introduction

In Chapter Six the feedback from the data collected for this investigation is discussed. As explained in Chapter 5 (Section 5), the mixed-method research design is the chosen data collection strategy for this study. Hence, this section illustrates and explains the analyses of both methods with specific reference to the quantitative research method.

6.2 An overview of the quantitative data

All second-year students enrolled for the BEd (Hons) Education Management, Law and Policy study programme for 2004, at the University of Pretoria, were requested to complete the questionnaire. Forty-five students from Conventional Education were each handed a copy of the questionnaire, of which 27 were

completed and returned to the researcher (constituting a 60% return), while 270 students from Distance Education were handed a copy of the questionnaire, of which 144 were completed and returned to the researcher (constituting a 53% return) (see question 4). From the data collected for this study, a great difference between the numbers of students for each delivery mode can be observed. A major reason for this is the low number of students registered for the contact study programme. (This state of affairs was, initially, a source of concern for the researcher, but – having no other source of information to work with – she made peace with this situation.)

In the course of a second interview with the Project Manager of Distance Education Unit – regarding the BEd (Hons) study programme – it was revealed to the researcher that there is a steady trend of an increase in the student number in Distance Education, accompanied by a corresponding decrease in the student number of Conventional Education. (Possible reasons for this will be highlighted in the course of this study.)

In addition to this, this marked difference between the student numbers from Distance and Conventional Education caused the researcher to avoid (in most cases) percentage calculations, as this caused these calculations to become less significant, resulting in huge deviations - causing a large drop or increase in raw scores.

It must be noted, in cases where the difference in relation of the two delivery modes was not significant enough a table was not drawn up to represent these responses. (This at times, is the case, which may be connected with the fact the programme under review is for post-graduate study and that all the students were adults.) However, a conscious effort was made to make descriptions presented as clear as possible.

Finally, the Chi-square test was applied on student examination scores that had been provided by the Department of Administration, of the university, to assess whether divergences between scores of students from the two delivery modes can be detected. The essence was to establish the quality of the learning experience which all these students were exposed to, as they were to be awarded the same certificate on successful completion of their studies. However, this study focused on only six modules, which all the respondents had completed as at the time of this investigation.

6.3 Statistical analysis of the data

6.3.1 Analysis of the quantitative investigation

6.3.1.1 Frequency analyses (Descriptive analysis)

6.3.1.1.1 Biographical information

a) Gender (question 1)

Table 6.1: The gender of respondents in the investigation (n = 172)

Program Gender	Conventional Education (Numbers)	%	Distance Education (Numbers)	%	Total No.	Total %
Male	12	46%	46	32%	58	34%
Female	14	54%	98	68%	112	66%
Total	26	100%	144	100%	170	100%

Missing Frequencies: 2

Table 6.1 presents the following information:

- There were 12 (7.06%) male Contact Education students, as opposed to 46 (27.06%) male Distance Education students who participated in this investigation.
- There were 14 (8.24%) female Contact Education students, as opposed to 98 (57.65%) female Distance Education students who participated in this investigation.

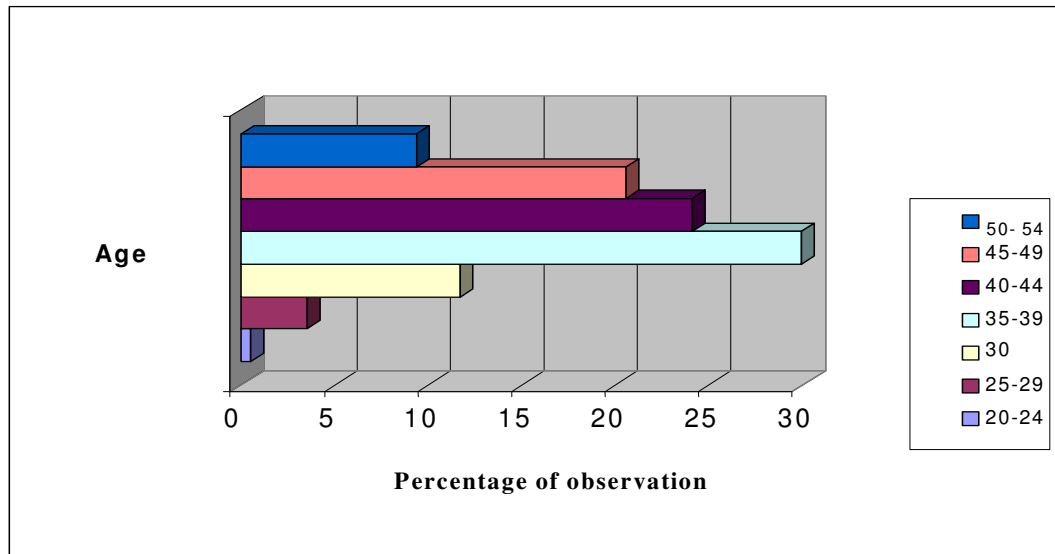
From this, one may conclude there are significant differences between male and female who study through distance education. Also, this may support the claim that distance education students tend to be female (DoE, 2004; NCE, 2003; Randolph, 2003), with teaching as a career, as opposed to their male counterparts, who tend to have non-teaching careers. However, another possible reason for this situation may be that women in most parts of Africa, have been traditionally denied formal education and are now seizing the opportunity opened to them to study (Pityana, 2002; Carnevale, 2002).

b) Age of students respondents in the investigation (question 2)

For this question, the possible age categories of the respondents were: 20 - 39 and 40 - 54. (Investigation revealed that having more than two age categories caused the groups to splinter, especially as the group from Contact Education involved in this study was small - which had the effect of causing a large percentage deviation with the addition or loss of a single frequency.)

The histogram below indicates the distribution of age of the respondents:

Figure 6.1: Histogram of the age of student respondents (n = 172)



Missing Frequencies: 2

The histogram presented above reflects the age of the majority of the students enrolled in the BEd (Hons) study programme, (a post-graduate degree course) which falls within the early adulthood to middle adulthood categories, an observation supported by (Labuschagne & Mashile, 2005). This could be attributed to most of them being employed and having family responsibilities. Buttrressing this, statistics on the profile of students from Distance Education received from the Department of Administration of the Distance Education Unit, of the University of Pretoria, confirmed that the age of the majority of these students fall within these same age group categories (UP, 2006a).

In the same vein, in the United States it has been predicted that the overall college enrolment for the periods 2001 to 2011, will be characterised by the expectation that 58% of the students are to be female, and 38% of the students are expected to be over the age of 25 years (Randolph, 2003).

c) Main venue of discussion classes (question 3)

A total of 86 students (54%) responded to this question – an above average percentage – from both modes of delivery.

- Of this total, 12 students (41%) were from Distance Education, who attended their discussion classes at the Groenkloof campus (i.e. the Faculty of Education);
- However, of the remaining Distance Education students, 74 students (46%) attended discussion classes at various learning centres that have been created by the university.

This might suggest that most of the students on this program were registered for the distance mode, a trend that has already been highlighted in Section 6.2. Also, it can be noted that the provision of decentralised learning centres has been identified as one of the features of Distance Education at this institution (Mostert, 2006).

d) Occupation of the respondents who participated in the investigation (question 5)

In response to the question of supplying information on their profession, practically all the 170 respondents (99%) indicated they were educators by profession, except for two (1%), who worked in related fields. This is understandable as the B Ed (Hons) study program was specifically designed for educators (see Section 3.7).

Reflecting this, findings from this study support present research that ‘many distance learners are different from traditional undergraduates in that they are already in professions’ (Doug, 2002) and ‘being economically active’ (Labuschagne & Mashile, 2005). See also (NCE, 2003; UP 2006).

e) Distance travelled to the university/learning centre (questions 6 & 7)

The students were asked what return distance (in kilometres) they travelled to the university or learning centre for lectures/discussion classes. (It was thought that this could serve as a motivational factor for the successful completion of programmes, which adults enrol for.)

- The maximum distance (in kilometres) which the Conventional Education study programme students travelled to lectures was 480 km. (The majority of these students are from the environs of Gauteng Province, where the University of Pretoria is situated.)
- The maximum distance (in kilometres) travelled by the Distance Education study programme students was 1000 km. This may be connected to the students being from all over South Africa – a large area. Also, among the respondents was a student from Botswana (a neighbouring country), who regularly covered the 700 km to attend contact sessions. (This indicates that the university's student catchment area goes beyond the borders of South Africa.)

According to NCE (2003), students who live 10 or more miles from the institution where they were enrolled, were more likely to participate in Distance Education than students who live closer to the institution.

f) Reasons for commencing studies with the university (question 8)

Since the focus of this study is largely on quality as it relates to *access*, *delivery* and *output*, the reason for student commencement of studies with the university was asked. Responses of students from both modes of delivery were grouped together because the indicated difference in their reasons was minimal. Table 6.2 below presents these reasons:

Table 6.2: Reasons for commencing studies with the university (n = 172)

Reasons	Conventional Education	Distance Education	Total	Missing Frequencies
Availability of money/bursaries/grants	3	11	14	158
Quality of the Program	85	16	101	71
Status of the university in South African context	2	15	17	155
Nature of the given program	3	34	37	135
On recommendation	6	11	17	155
Proximity	1	1	2	170
Others	2	8	10	162

Table 6.2 indicates a total of 101 students, commenced studies with the university on the basis of the ‘quality of the programme’ – which proved to be the most indicated reason. Other reasons provided, listed in descending order of popularity, are:

- ‘Nature of the given programme’ – 37 students;
- ‘Status of the university in the South African context’ and ‘on recommendation’ – 17 students, respectively;
- ‘Availability of money/bursaries/grants’ – 14 students;
- ‘Others’ – 10 students; and
- ‘Proximity to the university’ – 2 students.

Reasons provided by students under the category of *Others* include:

- ‘To develop myself’;
- ‘To be an MP someday.’
- ‘Broaden my horizon.’ And
- ‘Direct relevance to occupation’.

All of these have been placed under the heading: “Personal” reasons.

From the above, it may be suggested that students may be drawn into a study programme of a particular institution for various reasons, chiefly the quality of the program (Peters, 2000) and, secondly, that the university is probably living up to its goal (see Section 4.6). This is also supported by the item ‘quality of the program’ in the questionnaire, having the lowest missing frequency (71).

g) Highest qualification of the respondents who participated in the investigation (question 9)

The question on the highest qualification obtained by the respondents was bi-modal, as it centres around two distinctive groups. The first group was tagged *Graduate* and these students were in possession of:

- a Baccalaureus and a teacher’s diploma (BA+HED);
- Baccalaureus degree only (BA); and
- A 4-year composite degree in Education [BA (Ed)] degrees.

The second group was tagged *Non-Graduate* and these students were in possession of:

- A 4-year teacher’s diploma (M+4);
- 3-year teacher’s diploma (M+3); and
- A Further Diploma in Education (FDE) or an Advanced Certificate in education (ACE);
- And other possible qualifications.

It is expected that responses from this question will later facilitate the final analysis when determining student academic readiness for commencing this study programme.

Table 6.3 below reveals students' responses to this question:

Table 6.3: Highest qualifications of respondents, who participated in the investigation

Groups	Distance Education	%	Conventional Education	%	Total	%
Graduates	31	23%	5	19%	36	22.5%
Non-Graduates	102	77%	22	81%	124	77.5%
Total	133	100%	27	100%	160	100%

According to Table 6.3, it may be seen that:

- In the Graduate category – only 31 students (23%) from Distance Education are graduates. This situation is reflected in the Contact Education respondents, of whom 5 students (19%) are graduates. This indicating a total of 36 graduates (22.5%).
- In the Non-Graduate category – The majority of the students from both modes enlist under this category – with 102 students (77%) from Distance Education and 22 students (81%) from Conventional Education, giving a total of 124 students.(77.5%).

The diverse range of qualifications that allow student access to the BEd (Hons) study program reflects the policy of open access that the University of Pretoria extends to adult students.

In addition to this, in the interviews the researcher conducted with the course presenters of the different modules in the study programme, it was highlighted that the diverse range of entrance qualifications affected student performance. It was also asserted that students in the *Graduate* category generally performed better than those in the *Non-Graduate* category. Explanation given on this by the course presenters was that students in the first category have undergone the

rudiments of what a degree study programme involves (since the particular study programme under consideration is a post-degree programme). Conversely, students from the second group have had less exposure to these rudiments. However, these assertions will be examined in the latter part of this research study.

h) Ethnic characteristics of students

One of the areas of interest for this study is the ethnic issue, as it relates to South Africa. After the Apartheid era, government policy was adjusted and practice was legislated to extend the possibility of learning to the previously disadvantaged groups in this country (See Section 3.4). Therefore, through this study, one expects to observe the extent to which the University of Pretoria has adhered to this policy.

Research for this section is based on documents provided by this university that reflect the ethnic characteristics of students involved in the B Ed (Hons) study programme, from Distance and Conventional Education. Table 6.4 presents the race profile of the students that were enrolled in the program from 2003 – 2006:

Table 6.4: Ethnic characteristics of BEd (Hons) Education, Management, Law and Policy contact and distance education students (2003 – 2006)

RACE	2003				2004				2005				2006				Grand Total
	Contact Education		Distance Education		Contact Education		Distance Education		Contact Education		Distance Education		Contact Education		Distance Education		
	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	
Blacks	226	80%	4 070	97%	249	68%	3 106	97%	215	69%	3 464	97.6%	176	70%	5 001	98.3%	16 507
Coloured	7	3%	27	1%	7	2%	26	1%	5	2%	15	0.4%	7	3%	42	1%	136
Indian	0	0%	30	1%	2	1%	34	1%	5	2%	45	1%	3	1%	19	0.4%	138
White	48	17%	34	1%	105	29%	21	1%	84	27%	26	1%	66	26%	24	0.5%	408
Total	281	100%	4 161	100%	363	100%	3 187	100%	309	100%	3 550	100%	252	100%	5 086	100%	17 189

Source: University of Pretoria, 2006d

The table above indicates between 2003 and 2006 a total student number of 17 189 registered for the BEd (Hons) study programme, and that:

- The majority of the students enrolled during this period were Black (African) – with a total of 16 507 (96%). (However, it may be noted that of this number 15 641 students (95%) were enrolled for the Distance Education delivery mode.);
- The Coloured student number was 136 (1%);
- The Indian student number was 138 (8%); and
- The White student number was 408 (2%).

Furthermore, these figures corroborate, as established in the literature review (see Section 3.2.3), the importance of making higher education accessible to Black South Africans, who form the majority of the population – a problem that was created during the apartheid era (SAIDE, 1996; DoE, 2001; Cloete, 2002; Daves et al. 2004; and Gordon, 2005). When one considers its historically-white background, the university has clearly fulfilled this objective. However, Cloete and Bunting (2001: 21) are of the opinion that ‘one sign that inequities still exist within the system (i.e. the country’s education) is that large proportions of African students are clustered in distance education programs (most of which are in the humanities) within historically white universities’. Nevertheless, it is the researcher’s belief that the question of inequities might take a while to sort out yet.

6.3.1.2 Discussion of the findings in terms of the main research question and related sub-research questions

The main research question for this study is:

'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, when assessed in terms of access, delivery and output?'

And from this question, emerges the first part of sub-research question 2, which this section attempts to answer (Section 1.3):

'What are the demographic and ethnic characteristics of students who choose distance education as preferred mode of delivery above other forms of teaching...?'

Therefore, the following points have been established through the questions:

Most students involved in the BEd (Hons) Distance and Conventional Education study programmes at the University of Pretoria are:

- Black (African), who:
 - As a population group, were denied access to formal education during the apartheid years.
 - Presently, forms an estimated 79.5% of the total population of the country (Statistics South Africa, 2006).
 - The University of Pretoria operates an *open door* admission policy system when it comes to its admitting students.
 - Lastly, distance education delivery is a means of opening up access to education for many learners (section 2.4), as a large percentage of the respondents for this study were enrolled.
- Female adults who, traditionally, have been denied formal education to an even greater extent than their male counterparts, and are often more responsible for family commitments (Carnevale, 2002; Pityana, 2002; Randolph, 2003).

- Adult students who are in their middle age (Labuschagne & Mashile, 2005).
- They are mostly found in the teaching profession or related fields (NCE, 2003; Labuschagne & Mashile, 2005) and
- They are attracted to the program because of its quality, which suggests the university is reputed to offer *quality* education (Peters, 2000).

However, further implications of these matters for this study will be investigated during the latter part of the study.

6.3.1.1.2 Factors determining the degree of extension of access to students enrolled for the distance and contact study programme under investigation

Questions in this section further examine the issue of access, already raised in Section 6.3.1.2 above. It has been argued that merely extending access to students previously denied such access may not necessarily depict fairness to these students, who are regarded, these days, as *clients* who contribute much financially to the concept of 'open access' (see Section 2.4.2.2). Hence, it is necessary to ascertain how 'open' the access indeed is. And lastly, it must be noted that in this instance, data on both Distance and Conventional Education have been combined as all the students used the same learning materials. However, distinction has been made where it was noted that the data would be useful for comparison and where conclusion could be drawn in relation to the research question(s).

a) Orientation for newly enrolled students (question 10), attendance of programme (question 11) and time of programme (question 12)

Table 6.5 reflects both raw and percentage scores of the availability of the orientation program for newly enrolled students on the BEd (Hons) study program:

Table 6.5: Orientation for newly enrolled students (n = 172)

Response	Distance Education		Contact Education		Grand Total	
	Total	%	Total	%	Total	%
Yes	51	37.5%	22	85%	73	45%
No	85	62.5%	4	15%	89	55%
Total	136	100%	26	100%	162	100%

Missing Frequencies: 10

A high percentage (62.5%) of students from Distance Education replied negatively to the question of whether there was an orientation programme for newly enrolled students. Conversely, the majority (85%) of students from Contact Education responded positively to this question.

This is understandable as tutorial letters sent to students from Distance Education by the university often served as their *orientation programme* (see Section 3.7.3), while students from Contact Education physically attended such a programme on the campus.

In relation to this, Table 6.6 represents the number of students who attended and did not attend the orientation programme:

Table 6.6: Attendance of orientation program by newly enrolled students (n = 172)

Response	Distance Education		Contact Education		Grand Total	
	Total	%	Total	%	Total	%
Yes	37	29%	17	65%	54	35%
No	93	71%	9	35%	102	65%
Total	130	100%	26	100%	156	100%

Missing Frequencies: 16

From Table 6.6, it is evident that 71% of students from Distance Education did not attend the orientation programme for newly enrolled students, buttressing the fact that their tutorial letters served as their orientation, as it contained all necessary information (see Table 6.4). (It is thought the group of distance education students, who responded positively to this question, might have accepted that course presenters and available management staff who addressed students on the first day of the contact sessions were presenting an orientation programme. However, it must also be noted that attendance at these contact sessions was not compulsory.)

Conversely, 65% of students from Contact Education responded positively, indicating that they did attend such an orientation programme.

In answer to the question on when the students had attended the orientation programme, the response was January and February 2005.

b) Activities involved during orientation programme (question 13)

Activities involved in the orientation programme, as indicated by the students included:

- Welcome speech by the Dean of the Faculty
- Introduction of facilitators of the modules
- Introduction to courses by the faculty staff
- Introduction to administrative staff present at the program
- Lectures on study habits in order to guide the students

However, it should be noted that most of these responses were from the students from Conventional Education. The students from Distance Education indicated the tutorial letters served as their orientation programme, though some students also indicated the welcome talk when meeting with their course presenters for the first time, served as their orientation.

These questions were posed to ascertain how prepared students were for the BEd (Hons) study programme, as this may have a direct bearing on their performance and the throughput rate. Buttressing this, Raphael (2006) in a recent study has highlighted the importance of the *Orientation Program* in order to familiarise students with the system.

c) Provision of non-instructional support¹ (question 14)

To this open-ended question, the majority of the respondents were students from Distance Education, and were of the opinion that – apart from teaching – the university did not provide non-instructional support (such as toll-free phone support and counselling). Their comments on this ranged from *None* to *Not aware*. However, some students were of the opinion the university did provide such support, through the *tutorial letters* that were sent to the students on a regular basis, *study guides* and *constant contact* (e.g. through telephone technology).

Literature (Carnwell, 1998; Stark and Warne, 1999; Johnson, 1999; Moreland and Carnwell, 2000; Carnwell, 2000; Harrington et al. 2001) abounds on the importance of non-instructional support for adult learners, more so in distance education, and particularly for women students – whose responsibilities are divided to include the running of a home – with emphasis on the possible disastrous effects in its absence (HESA, 2005).

d) Provision of academic advising services (question 15) and examples of such services (question 16)

Table 6.7 presents the student response to the question whether or not they believed the university provided sufficient academic advising services for students:

¹ A distinction has been made between academic advising services and non-instructional support, which refers in the context to services such as toll-free phone support and counselling services (see Sections 6.3.1.1.2(b), (d), (e), (q) and (s)).

Table 6.7: Provision of academic advising services (n = 172)

Response	Distance Education		Contact Education		Grand Total	
	Total	%	Total	%	Total	%
Yes	66	56%	12	67%	78	58%
No	51	44%	6	33%	57	42%
Total	117	100%	18	100%	135	100%

Missing Frequencies: 37

In response to the question on whether students were aware the university provided them academic advising services, 66 students (56%) from Distance Education and 12 students (67%) from Contact Education confirmed they were aware of this. Examples of such services given by students included:

- Information Booklets,
- Tutorial Letters,
- Contact Sessions (which afforded students concerned to meet with lecturers and administrative staff),
- Library Services and access to the Internet (by a few of them).

Conversely, it must be noted that 51 students (44%) from Distance Education responded negatively – their comment was mainly that they were not aware of the provision of such services – while 6 students (33%) from Conventional Education agreed with this statement (which might suggest that some students from the former group, did not take pains to familiarise themselves with the ‘Tutorial Booklet’ as there was ample evidence that this contained advice on for instance, study skills and general tips (UP, 2006c), buttressing the positive response.

Nevertheless, Raphael (2006) has asserted that ‘excellence in education means much more than course delivery. An entire support and academic services must go hand in hand...’ with it.

e) Frequent use of academic advising services (question 17) and areas of need for counselling (question 18)

The frequent use of academic advising services was divided into three major categories: 1. 'More than twice a year'; 2. 'Twice a year'; and 3. 'Less than twice a year'. From the findings,

- thirty-two (32) students from both Distance and Conventional Education made use of these facilities more than twice a year ;
- 29 students did so twice a year; and
- 20 students did so less than twice a year.

This shows that in general students understood the importance of the academic advising services and made use of them.

However, it is suggested that when students do not make use of such services or where the institution does not pay much attention to this, these students are often lowly motivated (Qurashi, Morton & Antosz, 2002).

With reference to the question asked in this section, the students identified the following areas in which they needed counselling:

- Career counselling,
- Studying,
- Time management,
- How to write examinations and complete assignments.

Students' response here could be an indication that the Distance Education Unit might need to start thinking of more creative ways to bring these to students or it might be that the respondents need the 'personal touch' with the institution, not just with the text. This becomes an issue because the items listed above have been identified as possible problem areas that students from Distance Education

especially struggle with (Radloff, Fox & Herrman, 1997; Van Schoor, Mill & Potgieter, 2002; Mostert, 2003; Mostert, 2006).

f) Reasons for choice of mode of delivery by both distance and contact education students (question 19)

According to Doug (2002), not all students are suited to distance learning. Therefore, this question requesting their reason for this choice of mode of delivery is of importance. Students from Distance and Conventional Education record they made their choices for the following reasons:

- Acquiring further knowledge
- Better qualifications
- Affordability of the program
- Full-time job
- It suits their nature
- Convenience
- Family and
- Remuneration improvement

These reasons were understandable as most students on the BEd (Hons) study program are middle-aged and have social commitments (e.g. family and employment).

Research on the profile of students that register for adult education programs supports this finding (Council for Adult and Experiential Learning [CAEL], 2000).

g) Suitability of mode of delivery to students (question 20) and reasons for the suitability (question 21)

Of the response to this question, 90% of the students from Distance and Conventional Education responded in the affirmative. Reasons given for this high response from the Distance Education students included:

- ‘Enough time on students’ hands to read, do assignments and pass examinations
- ‘Undisturbed full-time jobs and families,’
- The ‘program was inexpensive’;
- ‘Location of the university’ and
- ‘Opportunity to acquire more knowledge’.

Conversely, not all the Distance Education students felt this way, as 16 such students felt they have made a wrong choice in the mode of delivery - citing ‘lack of contact with other students’ as the reason for this.

Another aspect identified by certain students from Distance Education was a major problem of ‘loneliness’ (McKnight, 2000; Mostert, 2006) – this was despite endeavours by institutions to bridge the gap between the two delivery modes. This is an implication in relation to the main research question raised for this study, which will be addressed in the latter part of this study.

h) Types of instructional technology available to students while studying (question 22)

It has been suggested that instructional technology in higher education can enhance ‘more flexible access to university study’ and ‘choice for students’ (McCann et al. 1998), both of which have a direct bearing on the question of what type of technology is available to students enrolled for the program while studying. Therefore, Table 6.8 represents the types of instructional media available to students while studying, attending lectures or answering assignments.

Additionally, it can be noted the term *Local Students* refers to the Distance Education students, who live within a range of 50 km from the University of

Pretoria, and attended lectures on the Groenkloof Campus; while the term *Distant Students* are those students who attended classes off this campus.

Table 6.8: Raw scores of the types of instructional technology available to students while studying (n = 172)

Media	DISTANCE EDUCATION				CONVENTIONAL EDUCATION	
	Local Students (within 50 km range)		Distant Students (beyond 50 km range)		Yes	No
	Yes	No	Yes	No		
Print	28	1	64	13	16	0
Audio	7	12	8	41	1	4
ICT	5	12	19	37	11	2
Radio	10	9	17	35	3	4
Television	9	9	18	35	3	4

Missing frequencies:

Print	V42	50
Audio	V43	99
ICT	V44	85
Radio	V45	93
Television	V46	93

The available options were:

- Print,
- Audio Cassettes,
- Computer Technology (ICT),
- Radio; and
- Television.

A total of 108 students from Distance and Conventional Education – of whom 64 students (59%) were from among the *Distant Students* group of Distance Education students – indicated the category *Print* media as their main learning technology during their studies.

Reasons for this are connected with:

- Firstly, the fact that most students from Distance Education were from rural areas, and had no access to modern technology. For them, this forced the programme to be entirely print-based. For instance, recent statistics on the technology profile of enrolled students from Distance Education indicated that only 10% of the students had access to ICT (i.e. Internet and E-mail) (UP, 2006a).
- Secondly, the Distance Education Unit of the University of Pretoria (probably due to the first reason) relies heavily on first and second generation delivery modes (see Sections 2.4.3.2 and 3.5.2). But the question arises: to what extent does this impact on student performance? This aspect will be critically assessed in the summary and conclusion section (Section 8) in the latter part of this study.

i) Impact of completion of programme on students' future job expectations (question 23)

Responses (from participants from both modes) received, suggested the following as students' future expectations of the impact of the completion of the programme on their job:

- 'Drive for knowledge',
- 'Understanding new challenges',
- 'Promotional prospects',
- 'Improved management skills',
- 'Better remuneration', and
- 'Better opportunities'

These factors were the motivating thoughts for all the students and they expected these factors to accrue unto them at the completion of the BEd (Hons) programme.

This study supports the understanding that adult learners have well defined goals and are motivated (Dibiase, 2000). However, there is a need to examine the extent these motivational factors actually contribute to the success of students and to the completion of their studies (HELP, 1999; Labuschagne and Mashile, 2005). Further references will be made to these assertions in relation to the research question(s) in the latter part of this study.

6.3.1.3 Discussion of the findings in term of the first and second sub-research questions

Stemming from the main research question (See Section 6.3.1.2 on page 240.) are the sub-research questions 1 and 2 (which was partially answered in Section 6.3.1.1.1):

Sub-research question 1

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

Sub-research question 2

'...To what extent does educational technology (in the modes in focus) extend access to students?'

In an attempt to answer these sub-research questions, the students were questioned on their attitudes to several aspects related to the study programme under review (See Section 6.3.1.1 [2a – i]). Their responses include the following:

- That the university has an *orientation programme* available for Conventional Education students enrolling for the BEd (Hons) study programme for the first time, and that the University of Pretoria also provided their distance counterparts with *tutorial letters* to serve as the main tool for fulfilling this function. However, the majority of the Distance

- Education students may have not regarded these letters as fulfilling that role. Nonetheless, this process has been regarded by Raphael (2006) as being important to familiarising students with the educational system within their chosen study programme at the university. This is done to guard against low-morale, and explain the study programme prepared for them;
- That most of the distance education students might not have put to good use the “tutorial letters” given to them by the university, which made them feel that the university did not have in place, non-instructional support while some agreed that the university did so through the *tutorial letters*. Unfortunately, in literature it has been asserted that the lack of this could have disastrous effects on student performance and their completion rate. Both of which are directly related to sub-research question 1, as the low-completion rate of students from Distance Education is one of the major reasons why it is regarded as inferior to conventional education;
 - In relation to the point above, students identified some areas of need for counselling (*career, studying, time management and guidance on examinations and assignments*). Interestingly, these elements have been identified as possible problems that adult learners struggle with (Van Schoor, Mill & Potgieter, 2002; Mostert, 2006);
 - That the institution made *academic advising services* available to the students – which most made use of. This was because students had access to *tutorial letters, information booklets, and contact sessions*, which all result in motivating students highly (Qurashi & Antosz, 2002);
 - Students on the program had diverse motivational factors for enrolling for the BEd (Hons) study programme, which ranged from *acquiring further knowledge to remuneration improvement*, to mention but a few; and most of the factors were related to the impact of the completion of the programme on their jobs. Related to this was that a high percentage of these students were of the opinion their choice of delivery mode suited them; and, lastly

- The instructional technology provided by the institution – largely print-based – gave students access to higher education. (Most of the students enrolled for the BEd (Hons) study programme were from rural areas and would otherwise not have had access to such education had the university not adopted the policy to provide distance education studies.)

Nevertheless, the researcher will critically evaluate the implications of these findings in the latter part of this research study.

6.3.1.3.1 Provision and assessment of teaching and instructional strategies available to distance and contact education students at the University of Pretoria

In this section, questions are posed about the teaching and instructional strategies available at the University of Pretoria, to investigate the quality of the learning experience which students from Distance and Conventional Education were exposed to, and especially ascertain whether there existed any difference between the qualities of the learning experiences of students from each mode.

Hence, it was with care and focus that the researcher recorded student responses, to maintain an accurate description of these responses that were, in their turn, descriptive in nature (See Section 5.2.2.1). Simultaneously and where it was discovered this would greatly assist in the answering of the related research question(s), distinction has been made between responses of students from Distance and Conventional Education. The researcher believes this section is of special importance, as the University of Pretoria is known for its stance on quality (see Section 4.6) and students from both delivery modes have asserted that *quality* is their main reason for enrolling with this university (Section 6.2.1.1.1 -f).

a) Punctuality of lecturers at the start of classes (question 24)

One hundred and sixty-two students (99%) from both modes of delivery responded in the affirmative to the question of regular attendance and punctuality of lecturers at the start of class sessions. This perhaps reflects the attitude toward responsibility held by the university and its lecturers involved in the teaching programme. The researcher believes this aspect has contributed much to support the definition of the term *quality* as defined by the university.

b) Meeting with lecturers for support (question 25), regularity of the meeting (question 26) and methods of contacting lecturers (question 27)

A large percentage of students from Distance and Conventional Education (80%) had the opportunity of meeting with the lecturers for support (this tallied with their response to questions 16 and 17 – Section 6.3.1.1.2). However, many of those that answered in the negative (18% out of the remaining 20%) were, in the main, students from Distance Education who lived a great distance from the university, a situation that only permitted them opportunity to meet with their lecturers during the contact sessions. And as attendance at these sessions was not compulsory, it was only when these students made the effort to attend the contact sessions that such contact was possible.

Interestingly, one of the main reasons indicated by the students for commencing their studies with the University of Pretoria was belief in the *quality* of education delivered by the institution (Section 6.3.1.1.1-f) – this is part of what makes for quality (Holmberg, 1995; Stark & Warne, 1999; CAEL, 2000; Kelsey & D’souza, 2004).

On the regularity of these meetings, the following became evident:

- 31 students (20%) from both modes met with their lecturers *once* in a year for support;

- 91 students (59%) met their lecturers *twice* in a year. (However, it must be noted that Distance Education students formed the majority of the respondents (18% out of 20% and 57% out of 59% respectively), who had contact with their lecturers during the biannual contact sessions.);
- Four students (3%) from both modes met them *thrice* a year;
- While 19 students (12%) met with their lecturers 'more than thrice a year'. However, it is interesting to note here that 7% of the students in this last group were contact students on the campus.

Conversely, it can be noted that 9 students (6%) from both modes indicated that as at the time of this investigation they had yet to meet their lecturers. Interestingly too, the majority (6%) of these students (6%) were the *Distant* Distance Education students.

Divergences in the frequencies of students in meeting with lecturers for support becomes clearer when one understands that the Conventional Education students had better advantage simply because of their proximity to the campus. Conversely, students from Distance Education only had this opportunity during their contact sessions. It is hoped that during the course of this analysis, probable implications of this in relation to the quality of the learning experience provided for the students will be investigated. In relation to this Table 6.9 represents the methods of students' communication with their lecturers:

Table 6.9: Methods of contacting lecturers (as indicated by respondents) based on an open-ended question

Methods of Contact	Distance Education		Total	Conventional Education	Total
	Local	Distant			
Telephone	33	68	101	19	120
E-mail	1	3	4	7	11
Fax	1	10	11	2	13
SMS	0	1	1	0	1
Personal Visits	3	8	11	0	11
Never	5	13	18	0	18
TOTAL	43	103	146	28	174

To the question on the methods students used to contact their lecturers, 120 students (69%) from both modes of delivery contacted lecturers over the *telephone*. (This aspect was supported by 68 students (39%) of the *distant* Distance Education category.) This contrasted greatly to the other possible methods of contact, largely due to the students living a distance from the university - a high percentage (98%) of which, according to a recent survey conducted by the Distance Education Unit of the university, having access to telecommunications as at the time of this investigation (UP, 2006a). Other less popular methods of contact cited by students included E-mail; *Fax* (used mostly by contact students who resided in urban areas); *SMS* and *Personal Visits*.

Further to this, approximately 10% of the students indicated they *never* contacted their lecturers, providing reasons that included: 'I don't know how', '... no means of contact', '... I don't know them before the sessions' and 'It is difficult' because 'it's costly'.

However, literature abounds with the necessity and the value of contacting faculty members (McKnight, 2000; Kelsey and D'souza, 2004). Further implications of all these findings will be investigated in the latter part of this study.

c) Staff-student appraisal (question 28) and time of such appraisal (question 29)

In response to the question on whether they were provided opportunity to assess their lecturers, 122 students (75%) from both modes of delivery answered in the affirmative, while 40 (25%) answered in the negative. In addition to this, distance education students' responses to the second question showed that assessment took place at the end of each block when they met with their lecturers for the last time (See the CDROM submitted with this thesis for copies of the appraisal form for both modes of delivery).

Student overall impressions of their lecturers is reflected in Table 6.10.

Table 6.10: Time of staff-student appraisal given by students from both modes, based on an open-ended question

Time	Respondents	Percentage
0 – 3 months	27	23%
4 – 6 months	70	61%
7 -9 months	6	5%
10 – 12 months	11	10%
1 year+	1	1%
Total	115	100%

Appraisal of lecturers by students has been touted as an important aspect of quality assurance in higher education, as the students are one of the stakeholders in the learning process, and more so because they are directly at the receiving end of such services. This is supported in literature by Perraton and Hulsmann, 1998; QAA, 1999; Lomas, 2004; Williams, 2005; Ekong et al. 2006.

d) Method of staff-student appraisal (question 30) and rating of such method (question 31)

In responding to this open-ended question, those who agreed that periodic appraisal of lecturers did take place, terms such as *assessment sheets*, *questionnaire* and *evaluation forms* were used to describe its format. However, Table 6.11 represents the rating of staff-student appraisal:

Table 6.11: Rating of staff-student appraisal method by students from both modes

Remark	Distance Mode	%	Contact Mode	%	Total	%
Poor	5	5%	2	9%	7	5%
Fair	17	15%	2	9%	19	14%
Good	63	56%	16	73%	79	59%
Excellent	27	24%	2	9%	29	22%
Total	112	100%	22	100%	134	100%

As can be seen from this table, students from Distance and Conventional Education evaluated the staff appraisal method in the following way:

- 7 students (5%) rated the method as *Poor*,
- 19 students (14%) rated it as *Fair*,
- 79 students (59%) affirmed it was *Good*, and
- 29 students (22%) as *Excellent*.

All in all, the researcher is of the opinion that an overall rate of 81% (i.e. combining *Good* and *Excellent* rates) approval by the students affirmed the method as acceptable. As earlier said, involving students in this type of appraisal, may be regarded as good practice at ensuring the quality of a study program (Lomas, 2004).

e) Completion of learning style assessment questionnaire (question 32) and knowledge of personal learning preferences (question 33)

Students from Distance and Conventional Education were asked questions on whether they had completed any *learning style assessment questionnaire* provided by the University of Pretoria and whether they were aware of their own study preferences – to understand whether the university had taken these into consideration in the course of preparing their learning materials. According to Logan and Thomas (2002), the knowledge of this becomes handy when writing such materials.

Tables 6.12 and 6.13 reflect the responses on the completion of learning style assessment questionnaire by students from Distance and Conventional Education:

Table 6.12: Completion of learning style assessment questionnaire (n = 172)

Response	Distance Education		Contact Education		Total	
	Total	%	Total	%	Total	%
Yes	58	42%	16	64%	74	46%
No	79	58%	9	36%	88	54%
Total	137	100%	25	100%	162	100%

Missing frequencies: 10

In response to the question on whether they had completed a learning style assessment questionnaire, 74 students (46%) from Distance and Conventional Education confirmed they had done so, while 88 students (54%) responded negatively to the question. However, it should be noted that students' responses to further question on this (see Table 6.13) suggested that it was not the university that carried out this assessment.

Table 6.13: Knowledge of personal learning preferences (n= 172)

Response	Distance Education		Contact Education		Total	
	Total	%	Total	%	Total	%
Yes	102	64%	21	13%	123	77%
No	33	21%	4	2%	37	23%
Total	135	85%	25	15%	160	100%

Missing frequencies: 12

Conversely, it could be deduced from Table 6.13 that 123 students (77%) were aware of their personal learning preferences, while 37 students (23%) were not aware. This suggests that the majority of those that knew about their learning preferences probably did so not through the assistance of the university, but through other means, not unconnected with their teaching profession.

Additionally, Goold and Rimmer (2000) have stressed that learning preferences have been identified as having some influence on the effectiveness of teaching and pedagogical materials.

f) Method of student assessment (question 34)

In response to the question of methods applied for student assessment, 89 students (61%) from Distance and Conventional Education affirmed that the university applied the formative assessment method, while 57 students (39%) also identified that the university applied the summative assessment method. From this, one could say that both methods were used for the students. Also, further evidence from the Tutorial Booklet showed that the university employed the self-assessment method (UP, 2006c).

This is in line with the suggestion of Mostert (2006:17) that there is always the need for 'continual formative assessments to allow the learner to determine his/her preparedness to write the summative' examination.

g) Length of time for feedback on assignments and examinations (question 35 a & b) and Due date for the submission of assignments (question 36)

In response to the question on the average length of time they waited for feedback on assignments and examinations, student responses ranged from *1 week* to *18 weeks*. However, 52 students (34%) indicated *4 weeks* (with 44 of these students (29%) being from Distance Education). Conversely, 11 students (48%) from Conventional Education indicated *2 weeks*. Possible reasons for the differences are explained later.

Furthermore, Table 6.14 represents student responses to the question whether due dates for submission of their assignments or not:

Table 6.14: Attachment of due dates to submission of assignments (n = 172)

Response	Distance Education		Contact Education		Total	
	Total	%	Total	%	Total	%
Yes	109	69.43%	18	11.46%	127	81%
No	26	16.56%	4	2.55%	30	19%
Total	135	85.99%	22	14.01%	157	100%

Missing frequencies: 15

From Table 6.14, it is indicated that 127 students (81%) from Distance and Conventional Education agreed that due dates were often supplied with their assignments. (Further breakdown of this, indicates that 69.43% of this number were students from Distance Education, while 11.46% were students from Conventional Education.) Conversely, 30 students (19%) disagreed that due dates were often supplied with their assignments. (Further breakdown of this, indicates that 16.56% of this number were students from Distance Education, while 2.55% were students from Conventional Education.)

In response to the question on the feedback times for examinations, students indicated the range of *1 week to 20 weeks*. It can be noted that the majority of the students from Conventional Education indicated *1 week*, while majority of the students from Distance Education indicated *4 weeks*. In addition to this, only one student from both modes indicated *20 weeks*. However, for instance, dates when distance education students would get feedback on these had been set in the Tutorial Booklet (Up, 2006c).

Responses to the first question showed that the university attached due dates to the submission of student assignments, while the divergences in the time of feedback of examinations may be connected with the fact that there are about four ways through which distance education students could access their results: via an MTN line; Short Message Service (SMS) technology; the WebCT; and via postage (which might not exclude delays in the postal delivery system; the distance of affected students and possible lapses from both students and the administrative system (see UP, 2006c). This aspect was addressed in the qualitative session (see Chapter 7, Section 7.3.2.2). Conversely, students from Conventional Education were always on campus to check their results, thereby leading to prompt feedback.

Nevertheless, attaching due dates to assignments and providing prompt feedback on these assignments and examinations have been identified as an essential part of a quality assurance system (Chickering & Gamson, 1991; QAA, 1999; CAEL, 2000; Chickering & Erhmann, 2003; Clark 2003; Ramsden, 2003; Codde, 2006). This assists student motivation (Davis, 1993). All these factors are directly related to the throughput rates of students.

h) Student comments on high expectations of lecturers in relation to their achievement (question 37)

In response to the question on whether the students experienced high expectations of lecturers in relation to their achievement, 141 students (86.5%)

from Distance and Conventional Education indicated they knew what their lecturers' expectations were in terms of their achievement, while 22 students (13.5%) did not know. According to scholars (Spady & Marshall, 1991; Killen, 2002), each learning experience must be guided by clarity of focus, which must be well articulated to the recipients (Davis, 1993; Willis & Kissane, 1997).

i) Students' satisfaction with the method of their assessment (question 38) and possible suggestions on it (question 39)

Table 6.15, represents student satisfaction level with the assessment method applied:

Table 6.15: Students' satisfaction with method of their assessment (n = 172)

Response	Distance Education		Contact Education		Total	
	Total	%	Total	%	Total	%
Yes	116	71.61%	22	13.58%	138	85.19%
No	22	13.58%	2	1.23%	24	14.81%
Total	138	85.19%	24	14.81%	162	100%

Missing frequencies: 10

From Table 6.15, 138 students (85%) from Distance and Conventional Education were satisfied with the method of assessment applied by the university, while 24 students (15%) indicated otherwise. Nonetheless, attention should be drawn to the fact that 22 students (13.58%) out of the 24 students (19%) dissatisfied with the method of assessment were from Distance Education. This situation may well be connected with the comments provided by students to the next question answered below.

Continuing with this question, students from both modes gave the following comments and opinions, providing possible suggestions to improve the method of assessment (question 39):

- Learning materials should be dispatched on time to allow students to embark immediately on their studies,
- The need to meet lecturers before dealing with assignments,
- Lecturers should mark assignments so that students could identify problems before the examinations,
- Students should be given an opportunity to write supplementary examinations.
- Feedback should be sent on time,
- Transparency is expected of lecturers,
- Students should be given more time for assignments,
- Access to past question papers.
- Better weighting for assignments,
- Review of exam questions (should be simpler because of 2nd language speakers) and dates (which often followed too closely)

Though many of the students from Distance and Conventional Education were basically satisfied with the method of assessment applied by the university, it is the researcher's opinion attention should be paid to the few dissenting voices because they too are *customers* having needs to be satisfied. Nevertheless, one of the students felt that 'some students do not do assignments up until after the contact sessions, [thus] fabricating excuses for late submission'. This suggests that some of the reasons for student dissatisfaction may be connected with their own faults. This aspect formed part of the focus of attention during the interview sessions with management (See Chapter 7, Section 7.3.3.3).

j) Distribution of tutorial materials to students from both modes (question 40)

Table 6.16, represents the opinions of students from Distance and Conventional Education, regarding the way study guides and readers were delivered to them by the university:

Table 6.16: Raw scores of the distributions of tutorial materials to respondents from both modes (n = 172)

Possible means of distribution	Yes			No			Grand Total
	DE	CE	Total	DE	CE	Total	
By post	139	5	144	0	5	5	149
Electronically	1	2	3	17	4	21	24
Personally collected	5	16	21	16	1	17	38
Faxed	0	2	2	19	4	23	25

Key: DE = Distance Education students. CE = Conventional Education students

Missing frequencies:

By Post	V75	23
Electronically	V76	148
Personally collected	V77	134
Faxed	V79	147

Table 6.16, indicates 139 students from Distance Education – of which 100 students were from the *distant* group – received their study materials by *post*. The high missing frequencies indicated suggests that the *post* still is the main means of distributing study materials to Distance Education students, especially those located in rural and sub-urban areas (Adekanmbi, c2004). Conversely, most students of Conventional Education (16 out of 17) collected their study materials personally. Another means of collection – only indicated by students from Conventional Education – was *Fax*.

k) Didactic qualities of the tutorial materials (question 41)

The phrase *didactic qualities inherent in a learning material*, refers to a learning material being used as an aid to ‘create desirable conditions that will facilitate effective self-learning’ (Rahman, 2006). Therefore, in measuring such quality of the learning material supplied to the students of the BEd (Hons) study programme, the attitude of the students to questions in this section (i.e. questions 41 – 44) were vital, as students from both modes of delivery used the same study

materials. Table 6.17, represents the student rating from Distance and Conventional Education with regard to their attitude toward the didactic quality of their tutorial materials:

Table 6.17: Opinions of combined distance and conventional students regarding the didactic qualities of the tutorial materials (n = 172)

Didactic Qualities	Respondents' Views on Quality of Readers							
	Poor	%	Fair	%	Good	%	Excellent	%
Relevance to Personal Objectives	0	0%	23	15%	99	64%	33	21%
Challenging	0	0%	11	7%	90	59%	51	34%
Interesting	1	0.7%	24	16%	88	58.67%	37	24.67%
Language	1	0.7%	23	15%	88	57.89%	40	26.32%
Illustrative (Adequate examples)	4	3%	40	27%	73	48%	34	22%
Adequate exercises	1	0.7%	22	14%	88	58%	41	27%
Tone (Conversational)	1	0.7%	38	25%	87	58%	24	16%

Missing frequencies:

Relevance to personal objectives	V79	17
Challenging	V80	20
Interesting	V81	22
Language	V82	20
Illustrative	V83	21
Adequate exercises	V84	20
Tone	V85	22

From Table 6.17, it can be deduced that most students from Distance and Conventional Education rated the readers provided by the university as *Good* (though with varied percentages) in regard to didactic quality. This was followed – in reducing number – by ratings of *Excellent* and *Fair* – while a minor group rated them as *Poor*. (The high missing frequencies indicated for this question are connected with the fact that some students did not respond to all aspects of this question.)

Although this response suggests a relative high student acceptance of the didactic quality inherent in the study materials (a bonus for the university), there may still be benefit in considering the views of the minority, so that the university may consolidate the materials used in the Distance and Conventional Education study programmes – especially as the number of students attracted to the distance education study program is constantly increasing (See Section 6.2).

I) Content, goals and objectives of tutorial materials (question 42)

Table 6.18, provides a description of the content of the study readers, as perceived by students from Distance and Conventional Education:

Table 6.18: Content of tutorial materials as provided by respondents from both modes of delivery (n = 172)

Content	Respondents' Views						Missing Frequencies
	Always		Sometimes		Never		
	DE	CE	DE	CE	DE	CE	
Course goals	115	16	14	2	3	0	22
Course objectives	114	16	15	2	3	0	22
Grading and evaluation criteria	99	14	29	3	6	1	20
Grading rubrics	59	9	39	6	28	2	29
Examples of good student work in the syllabus	44	4	31	7	53	5	28

Keys: DE = Distance Education. CE = Conventional Education

Table 6.18, represents that the majority of students from both Distance and Conventional Education described the readers as *always* providing: course goals, course objectives, grading and evaluation criteria and the grading rubrics. However, the study readers were rated low for not containing 'examples of good student work in the syllabuses. The high missing frequencies were the result of

students not responding to all the items in the question. This is in spite of the selected items having been identified as good tools in assessing the quality of tutorial material (Clarke, 2001).

However, it should be noted that most of the students who responded to the last item of the question were Distance Education students. (This may be an indication that the readers did not meet all the needs of these students.) According to Moore and Kearsley (2005), ensuring that students have met learning outcomes is very important and attending to the above mentioned factor will assist in achieving this aim.

m) Achievement of cognitive skills in the tutorial materials (question 43)

Table 6.19: Average percentages of achievement of cognitive skills (n = 172)

	Respondents' Views		
	Always	Sometimes	Never
Analysis	80%	18%	2%
Synthesis	73%	22%	5%
Application	82%	17%	1%
Evaluation	80%	17%	3%
Total Average Percentage	79%	18%	3%

Missing Frequencies: Analysis V91 27
 Synthesis V92 28
 Application V93 25
 Evaluation V94 26

As their responses were similar, Table 6.19, represents the combined views of students from Distance and Conventional Education, on the achievement of the cognitive skills listed in the question. An average percentage was found for each item:

- An average of 79% - a good majority - of the students indicated that their readers *Always* encouraged them in the achievement of cognitive skills;
- 18% indicated they were *Sometimes* so encouraged,
- While only 3% said *Never*.

Research has shown that quality ‘...teaching begins with careful design of courses, materials and learning activities, [which] focus on high level cognitive skills’ (Cavanaugh and Cavanaugh, 2004).

n) Extent of students’ dependence on tutorial material for study (question 44)

Table 6.20 reflects the extent of dependence on readers by students from both modes of delivery:

Table 6.20: Extent of students’ dependence on tutorial materials for study (n = 172)

Respondents’ Comments	DE	%	CE	%	Total	%
To a large extent	107	78.7%	12	71%	119	77.7%
To some extent	28	20.6%	5	29%	33	21.6%
Not at all	1	0.7%	0	0%	1	0.7%
Total	136	100%	17	100%	153	100%

Missing frequencies: 19

In responding to the question on the extent to which these students depended on tutorial materials for study, the following replies were indicated:

- ‘To a large extent’ – Most of the students indicated they were dependent on the tutorial materials to a large extent. (78.7% of the students from Distance Education and 71% of the students from Conventional Education indicated this.)

- 'To some extent' – A few students indicated they were to some extent dependent on the tutorial materials (20.6% of the students from Distance Education and 29% of the students from Conventional Education indicated this.).
- 'Not at all' – Only a minority of the students indicated they were not at all dependent on the tutorial material (0.7% of the students from Distance Education and 0% of the students from Conventional Education indicated this).

This was a major indication that the BEd (Hons) study programme was mainly print-based.

o) Accommodation of students during classes/contact sessions on the campus (question 45) and its description (question 46)

The response of students to this question of accommodation during classes was as follows:

- Students from Conventional Education indicated that 91% of them attended class from *Home* – which could refer to living with relatives/friends. (Their classes were conducted every fortnight, on the weekend.)
- Students from Distance Education indicated that 70% of them attended contact sessions from *Home* – which could refer to staying over at relatives/friends. The remaining 30% of these students made use of *Hotel* accommodation during these sessions.

It can be noted that no category was provided for the campus residences in the questionnaire, as it was the policy of the university (as at the time of this investigation) not to provide accommodation for students involved in this study programme.

During a post-interview with the policy maker, the researcher discovered that the university did not have the capacity to cater for accommodating the possible thousands of students that were admitted each year into the Distance Education study programme. It was also discovered that a previous arrangement with hotels in the area to provide a shuttle service to the campus for students was discontinued due to student complaints of high charge increases by these hotels for this arrangement.

However, campus accommodation was available to students from Conventional Education of the Faculty of Education, and this had been offered to a few of the younger, full-time BEd (Hons) students. The possible implications of these matters will be considered in the latter part of this study.

p) Attendance requirements expected from students for attending distance and contact sessions (question 47)

The majority of the students from Conventional Education indicated their unhappiness at being expected, by the University of Pretoria, to have a class attendance of 100%, while their Distance Education counterparts were encouraged (but not compelled) to attend two contact sessions for the year. In reply to this, the Distance Education study programme manager indicated possible lack of funds for the students from Distance Education who lived a great distance away from the campus and who had personal commitments to attend to, as reasons for the implementation of this policy. However, he went on to emphasise that it had been the observation of the university, over the years, of the probability of students who did attend such sessions performing better academically than those students who did not attend. He concluded this statement by saying that research in this regard was still in progress as at the time of this investigation.

Nevertheless, personal contact in education has been described as very important, and which may be ‘...severely and sometimes permanently

compromised' (Knight, 2000:2) if not consciously maintained. Hence, it has been advised that adequate contact sessions should be provided in distance education. The relevance and implications of all these matters will be critically investigated in the latter part of this research study.

q) Availability of library books to students for further reading while not on campus (question 48)

In response to this question on the availability of library books to students for further reading while not on campus, 96 students (70%) from Distance Education indicated they received their books through the *post* when not on campus, while 14 students (82%) from Conventional Education collected their books personally. This becomes understandable as the latter group of students attended classes on the campus, while the former group of students were scattered in different centres across the country. However, according to the Distance Education Unit manager, the university provided adequate readings within the learning materials, – to aid, especially, the students from Distance Education in their studies. But the researcher feels that this did not negate the possibility of students wanting or needing to do additional reading.

According to the Association of College and Research Libraries (ACRL, 2004), it should be expected that library resources at an institution of higher education be sufficient to meet the needs of all its students, irrespective of their location. The possible effects of these findings will be discussed in the latter part of this research study.

r) Contact with other students while on campus (from the contact students) or off campus (from distance education students) (question 49)

In responding to this question on whether students ever contacted fellow students, the following response was given:

- 15 students (11%), who were all from Distance Education indicated that they never contacted their colleagues;
- 4 students (3%) from both delivery modes contacted other students through *E-mail*;
- 2 students (1%) did so through *fax*,
- 95 students (61%) of them made contact over the *telephone*, which sometimes involved the sending of *SMS messages*.

Even though Moore (1989) has suggested that student-to-student interaction is very important to success in their studies, there are currently mixed attitudes toward this matter (Kelsey & D'souza, 2004).

s) Rating of the quality of the services of the administrative staff to students (questions 50-55)

The establishment of excellent administrative services, to support the teaching within an institution, has been regarded as a central aspect of quality in higher education (Perraton and Hulsmann, 1998; QAA, 2006). Therefore, it is important to involve the students in rating the services rendered by the administrative staff of the University of Pretoria, especially as the students were at the receiving end of such services. Tables 6.21 – 6.25 reflect the impression of students from Distance and Conventional Education on these matters – and where necessary – these have been separated to not impair the validity of the findings of this study.

Table 6.21: Rating of the quality of the services of the administrative staff to students (n = 172)

Student Ratings	DE	%	CE	%	Total	Total %
Poor	6	4%	0	0%	6	4%
Fair	14	11%	2	11%	16	10%
Good	69	51%	13	72%	82	54%
Excellent	46	34%	3	17%	49	32%
Total	135	100%	18	100%	153	100%

Missing frequencies: 19

Table 6.21, indicates the student response to the question of rating the quality of services provided by the administrative staff at the University of Pretoria:

- 46 students (34%) from Distance Education rated this aspect as *Excellent*, as did 3 students (17%) from Conventional Education – with a total average of 32%;
- 69 students (51%) from Distance Education rated this aspect as *Good*, as did 13 students (72%) from Conventional Education – with a total average of 54%;
- 14 students (11%) from Distance Education rated this aspect as *Fair*, as did 2 students (11%) from Conventional Education – with a total average of 10%;
- 6 students (4%) from Distance Education rated this aspect as *Poor*. As no Conventional Education students supported this category, the total average is also 4%.

All in all, the researcher is inclined to agree with the 86% of the total student body, who perceive the quality of the services rendered by the administrative staff of this university as *Excellent and Good*.

To buttress this, Table 6.22 provides an indication of how regularly necessary information got to students from Distance and Conventional Education.:

Table 6.22: Opinions of students regarding the flow of regular information (n = 172)

Respondents' Ratings	DE	%	CE	%	Total	Total %
Rarely	7	5%	3	17%	10	6%
Often	29	21%	8	44%	37	24%
Always	102	74%	7	39%	109	70%
Total	138	100%	18	100%	156	100%

Missing frequencies: 16

Table 6.22, indicates the student response to the question of their opinion with regard to the flow of regular information (concerning, for example, contact sessions and examinations):

- 102 students (70%) from Distance Education indicated that they *always* received necessary information on a regular basis, and 7 students (39%) from Conventional Education gave same response – with a total average of 70%;
- 29 students (21%) from Distance Education indicated that they *Often* received necessary information on a regular basis, and 8 students (44%) from Conventional Education gave the same response, with a total average of 24%;
- 7 students (5%) from Distance Education indicated that they *Rarely* received necessary information on a regular basis, and 3 students (17%) from Conventional Education gave the same response - with a total average of 6%.

It can be noted, 103 students (81%) of Distance and Conventional Education felt free to contact the staff *Anytime* or *When needed*. Of these

- 13 students (10%), from Distance Education did so during *Contact Sessions*;
- 4 students (3%) only during registration,
- 1% of the students *Rarely* contacted the staff,
- 5% of the students *Never* contacted the staff.

In response to the question of the methods the students use to contact the administrative staff of the university, the following responses were received from students from Distance and Conventional Education:

- 112 students (84%) contacted staff by *telephone*;
- 16 students (12%) contacted staff through *personal visits*;
- 2 students (1.50%) contacted staff by *Fax*,
- 1 student (0.75%) contacted staff by *SMS messaging*, while
- 2 (1.50%), who were only distance education students had not contacted them at all as at the time of this investigation.

Furthermore, Table 6.23 indicates whether a specific time was listed as to when students from Distance and Conventional Education could contact the administrative staff:

Table 6.23: Listing of a specific time as to when to contact administrative staff (n = 172)

Respondents' Remarks	Distance Education		Conventional Education		Grand Total	Total %
	Total	%	Total	%		
Yes	57	43%	12	71%	69	46%
No	77	57%	5	29%	82	54%
Grand Total	134	100%	17	100%	151	100%

Missing frequencies: 21

From this table the following is indicated:

- 77 students (57%) from Distance Education were not aware of such a listing, while 5 students (29%) from Conventional Education agreed with this – with a total average of 54%,
- 57 students (43%) from Distance Education and 12 students (17%) from Conventional Education were aware of such a listing – with a total average of 46%.

Nevertheless, the “Admin Booklet” (UP, 2006b) for the distance education students showed that this was indicated, and the researcher’s earlier observation

about students not availing themselves of given information seemed to be justified.

In reflecting on this matter, scholars have proposed that prompt response to students' enquiries greatly enhances the quality of service provided by an institution (Perraton & Hulsmann, 1998; Council on Higher Education Accreditation [CHEA], 2002; NADEOSA, 2003; Antony & Gnanam, 2004). However, the researcher is of the opinion that the posting of a listing of specific contact times that students may consult when needing to consult with the administrative staff of the university will further enhance the quality of service provided by this institution.

Table 6.24: Availability of names and contact details of staff to students (n = 172)

Respondents' Remarks	Distance Education		Conventional Education		Grand Total	Total %
	Total	%	Total	%		
Yes	75	54%	15	83%	90	58%
No	63	46%	3	17%	66	42%
Grand Total	138	100%	18	100%	156	100%

Missing frequencies: 16

Further, as indicated in Table 6.24:

- 90 students (58%) from Distance and Conventional Education had specific names of staff to contact, while 66 students (42%) indicated otherwise.

A plausible explanation for the high positive response from students from Conventional Education (83%) may be attributed to these students frequently being on the campus, in contrast to students from Distance Education (54%) whose collective response to this aspect tended to be negative. Allied to this matter, a senior administrative staff member admitted, in the course of an

interview, that the Distance Education Unit was short staffed as at the time of this investigation. Nevertheless, the researcher is of the opinion that making available names and contact numbers of staff members does assist students in the course of their studies.

Table 6.25: Linking of members of staff to specific tasks (n = 172)

Respondents' Remarks	Distance Education		Conventional Education		Grand Total	Total %
	Total	%	Total	%		
Yes	103	79%	17	100%	120	81%
No	28	21%	0	0%	28	19%
Grand Total	131	100%	17	100%	148	100%

Missing frequencies: 24

In addition to this, Table 6.25 indicates that of the 148 students who responded to this question, 81% linked members of the administrative staff to specific tasks or functions, while the 19% who did not agree with this aspect were all from Distance Education.

While writing on the issues discussed above, QAA (1999) has observed that a quality run administrative system is essential for the success of students, especially when dealing with distance education. The implications of these findings will be discussed in the latter part of this study.

6.3.1.4 Discussion of the findings in terms of the third research question

Most of the questions posed in the questionnaire that was completed by students of Distance and Conventional Education, focused largely on *teaching and instructional strategies* of the University of Pretoria, as these students perceived them. Most of the questions were also worded in such a way to extract in-depth, qualitative information on each element of the question. The sub-research question below applies to this section:

Sub - Research Question 3

'To what extent does the quality of learning experience in Distance Education compare with that of Conventional Education in general and, more specifically, at the University of Pretoria?'

Subsequently, student responses revealed the following:

- A large percentage of students from Distance and Conventional Education indicated that their lecturers were always present and punctual at the start of classes, and that they then had opportunity to meet their lecturers for academic support. However, it was revealed that students from Conventional Education had an advantage over their Distant Education counterparts in that – as they were always on campus – such contact could be enjoyed as necessary, while students from Distant Education could only enjoy such contact during the contact sessions, which were not compulsory to attend.
- Students from Distance and Conventional Education often contacted their lecturers over the *telephone*, while others did so through *personal visits*”, *SMS*, *E-mail* and *Fax*. However, some of the students, mainly from Distance Education, never did.
- According to the majority of the students from Distance and Conventional Education, the university regularly conducted *student-staff appraisals* at the end of each block/module, by means of a questionnaire. The researcher is of the opinion that student involvement in this exercise is an excellent move towards measuring the quality of the learning experiences of the students.
- Most students from Distance and Conventional Education indicated they had never been given any *learning style assessment questionnaire* to complete, by the university. However, a high percentage of students from both groups were already aware of their personal learning preferences, which the researcher assumed was due to their teaching experience.

- However, the issue here – for the researcher – was, in what way could the university utilize this information to its advantage, when preparing learning materials for study programmes, as students from both delivery modes used the same study materials – a decision by the university which the researcher supports. The application of this information could also indicate added quality, which the university is known for.
- Many of the students from Distance and Conventional Education indicated that the university used both the *formative* (which also included self-assessment by the students), and summative methods of assessment as assignments formed part of the final year mark. Additionally, many agreed that *due dates* were tied to the submission of their assignments, on which they received prompt feedback. However, the time varied when it came to the students from Distance Education and the researcher assumed that this may be connected with delays in postal delivery. In addition, most of the students from both delivery modes were of the opinion that the method of assessment was acceptable, but did offer some suggestions for improvement in this. It may be mentioned here, though, that one student was of the opinion that reasons for delay in assignment submission might not have been due to either the fault of the university or the postal system, but the fault of the student.
 - Many students from Distance and Conventional Education had knowledge of the high expectations of their lecturers in relation to their performance. (This will later be corroborated with the interviews with the course presenters in Chapter Seven.)
 - All students from Distance Education, who responded to the question on the distribution of tutorial materials, indicated they received these by postal delivery. While few students from Conventional Education received their tutorial materials through this channel, as they collected the tutorial material personally from the university. This suggested that the postal delivery system still remained an important means of distributing tutorial

- material to students from Distance Education, especially in a print-based form.
- Most students from Distance and Conventional Education were of the opinion their tutorial materials were *good* with regard to didactic qualities, content and development of cognitive skills. However, some students indicated that they were not *illustrative* enough, as adequate ‘examples of good student work’ were not provided. The researcher is of the opinion that this observation – even though from a minority group – should present a challenge to the university, as the majority of students from both delivery modes indicated they depended heavily on their tutorial materials for study purposes.
 - As none of the BEd (Hons) students from Distance or Conventional Education had ever stayed in the campus residences, they could not give any description of these facilities. It was noted that the policy of the university was, as at the time of this investigation, to not provide accommodation for students enrolled for this programme, as the campus facilities were inadequate to accommodate the ever increasing number of enrolled students for this study programme. However concessions had been made in a few cases, when younger BEd (Hons) students, who were studying full-time, were permitted to stay on campus. Probable implications of these matters, especially for students from Distance Education will be discussed in the latter part of this study.
 - With regard to the matter of not staying on campus, the majority of the students contacted other students by telephone, while some (who were all students from Distance Education), never did contact other students.
 - Even though all students from Conventional Education were expected to attend all their lectures, students from Distance Education were encouraged to attend contact sessions. However, attendance at these contact sessions was not compulsory. Reasons such as lack of funds and family commitments were given for this policy decision. However, a tendency of better academic performance for students who did attend

- these sessions had been noticed by management of Distance Education and was being researched as at the time of this investigation.
- The majority of students from Distance Education received library books by *post* while students from Conventional Education collected library books personally. It was observed that though the university provided adequate reading matter in the tutorial readers, this did not exclude the possibility some students still wanted access to further library services. The implications of these matters will be discussed in the latter part of this study.
 - The services of the administrative staff were rated as *good* by most students from Distance and Conventional Education; with many of the students being of the opinion that they unusually received the necessary information in good time. Also, the majority of the students felt free to contact the staff at anytime assistance with their studies were needed, and when they did so, most of them made contact over the telephone. However, while some students were of the opinion they had no specific names of staff to contact, the majority of students from Distant Education and all students from Conventional Education were of the opinion that members of the administrative staff were linked to specific tasks. The implications of all these matters will be investigated in the latter part of this study.

6.3.1.4.1 Student performance

In this section students from Distance and Conventional Education were asked questions related to aspects that highlighted factors impacting on their study performance and affected their chance of completing the BEd (Hons) study programme. This is important in relation to the low throughput rates of students from Distant Education study programs (Louw, 2005) and a major reason why aspersion is still cast on it by many people (Aluko, 2000; Diaz, 2000; Braimoh, 2003), and is also a main motivational factor for this research study (see Section 1.2). The findings from the responses of the students are discussed below:

a) Comments on quality of contact teaching (question 56), supportive educational practices (question 57) and reasons for such views (question 58)

In answering the question on the quality of contact teaching students from Distance and Conventional Education offered the following responses:

- students 27% from Distance and Conventional Education referred to it as *Excellent*;
- 46% of the students referred to it as *Good*;
- 17% of the students referred to it as *Fair*
- 10% of the students referred to it as *Poor*. (13 of the 15 students who responded in this category were from Distance Education.)

Describing ways in which such practices supported their studies, students' comments ranged from *explanation by the lecturers, helps in my assignments and knowledge, influences the pass rate to encouraging*. Conversely, students' comments on the last point ranged from *some lecturers read the text; some are rude*"; *irrelevant themes at contact sessions to tiredness during contact sessions*.

Table 6.26: Respondents' impression of the supportive nature of the educational practices at the university (n = 172)

Respondents' Remarks	Distance Education		Conventional Education		Grand Total	Total %
	Total	%	Total	%		
Yes	126	93%	15	100%	141	93%
No	10	7%	0	0%	10	7%
Grand Total	136	100%	15	100%	151	100%

Missing frequencies: 21

In response to the question of student impression of the supportive nature of the educational practices at the university, are represented in Table 6.26 in which the following is revealed:

- 126 students (93%) from Distance Education and 15 students (100%) from Conventional Education believed that the educational practices at the university such as teaching and support were supportive of their learning;
- 10 students (7%) from Distance Education did not support this opinion.

It is of interest to note that all the students who were unhappy with the supportive nature of the educational practices at the university were from Distance Education – an aspect that may be related to the feeling of alienation often experienced by distance education students (Louw, 2005; Mostert, 2006). Also, responses recorded in this section supports previous research that identifies that interaction with the faculty is beneficial to students' success (Kelsey & D'souza, 2004).

b) Financial difficulties (question 59), financial aid from the university (question 60) and views on availability and non-availability of financial aid (question 61)

Table 6.27 represents the response of students from Distance and Conventional Education to the question on whether they had financial difficulties in their studies:

Table 6.27: Respondents' feedback on financial difficulties with regards to their studies (n = 172)

Respondents' Remarks	Distance Education		Conventional Education		Grand Total	Total %
	Total	%	Total	%		
Yes	76	56%	9	56%	85	56%
No	60	44%	7	44%	67	44%
Grand Total	136	100%	16	100%	152	100%

Missing frequencies: 20

From Table 6.27, it is evident that:

- 56% of the students from Distance and Conventional Education were struggling with funding their studies. However,
- 44% indicated they were not struggling. Reasons for this could be deduced from Table 6.28 below:

Comments received from students in regard to difficulties of funding their studies included: that they were ‘in the dark’ on the availability of funds (5%); that the situation was stressful, discriminatory, and demotivating – especially as they knew of other students who withdrew from their studies due to financial difficulties.

**Table 6.28: Raw scores of forms of financial aid from the university
(n = 172)**

Forms of financial aid	Respondents						
	Yes			No			Grand Total
	DE	CE	Total	DE	CE	Total	
Bursary	7	3	10	66	7	73	83
Grants	0	0	0	63	7	70	70
Loans	69	7	76	48	4	52	128
Others	1	1	2	33	2	35	37

Missing frequencies: Bursary V124 89
 Grants V125 102
 Loans V126 44
 Others V127 135

From the Table 6.28, it is evident that the majority of the students from both modes did not receive any financial aid from the university towards their studies. Likewise, no student enrolled for the program had access to *grants* from the university. However,

- 10 students (12%) from Distance and Conventional Education had access to bursary funding;
- 76 students (58%) had access to loans from the government through EDU LOAN - a private company that provides financial assistance to students whose parents are permanently employed.
- While only 2 students (5%) were financially responsible for their studies or had access to loans from the Department of Education.

The implications of these findings would be discussed in the latter part of this study.

Nevertheless, according to Higher Education South Africa (HESA, 2005), lack of financial support has been identified as one of the causes of low throughput rate in higher education, which is directly relevant to this section. Therefore, the South Africa University Vice-Chancellors Association (SAUVCA, 2004) has advised that more funding be made available to alleviate this problem.

c) Other commitments affecting students' performances (question 62) and students' commitment to studies (question 63)

Apart from financial difficulties confronting students, other commitments affecting their studies (as indicated by students from both modes), were: *pressures from jobs* (for instance, the respondent from Botswana lamented that days of contact session often collided with schools days in his/her country), *family life*, *lack of time* and *journeying to the university*. Nevertheless,

- 96 students (72%) from both modes regarded themselves as being *very much* committed to their studies in spite of their tight schedules;
- 26 students (20%) regarded themselves as being *much* committed;
- 10 students (8%) regarded themselves as *partially* committed; while
- 1 student (1%) from Distance Education indicated *Not at all* committed.

From the already identified profile of adult learners involved in this program (Section 6.3.1.1.1), it can be deduced that:

- Firstly, this category of students have other commitments impinging on their studies (apart from finance) (CAEL, 2000); and
- Secondly, they needed to be extra-motivated to study, a view already expressed by Smith (2006).

However, some were still committed in spite of their tight schedule.

d) Students' impression on having made the right or wrong choice of programme (question 64) and reasons for such impression (questions 65)

Table 6.29 reflects the impression of students from Distance and Conventional Education on having made the right or wrong choice of study programme. This question was posed because *wrong choice of programme* has been identified as one of the reasons for low throughput rates in higher education but more so in distance education study programmes (Givney, 2003).

Table 6.29: Respondents' impression on choice of program (n = 172)

Respondents' Remarks	Distance Education		Conventional Education		Grand Total	Total %
	Total	%	Total	%		
Yes	127	98%	16	100%	143	99%
No	2	2%	0	0%	2	1%
Grand Total	129	100%	16	100%	145	100%

Missing frequencies: 27

From Table 6.29, it is evident that an exceptionally high number of the respondents (99%) indicated that they were convinced they had made the right choice of study programme which they were involved in, while only 1% felt otherwise.

The following were the reasons given by the first group:

- *relevance of the program to their jobs;*
- Others saw themselves as *achieving personal goals* ;
- While others regarded themselves as *being an inspiration to their children and colleagues.*

Higher Education Loan program (HELP, 1999) has described these motivational factors as intrinsic, which help students to cope more with pressures they might experience.

On the other hand, the reason given by the only respondent who felt he/she had made the wrong choice of study was: *“I was more interested in the learning process of the child, rather than the policies”*. Possible reason(s) for this would be considered in the latter part of this study.

e) Student expectations of the program yet to be met by the university (question 66)

The following is a list of some of the expectations of students from Distance and Conventional Education, some of which could be directly linked to suggestions for improvement on the programme (Section 6.3.1.1.5 - b):

- Introduction of more relevant courses (e.g. 'a component on independent schools')
- Linking the program to teachers' upgrade
- Improvement of the quality of contact sessions
- Motivation from all lecturers and
- Preparation for higher degrees

6.3.1.5 Discussion of the findings in terms of the fourth sub-research question

Research sub-question 4 has been found to be *partially* relevant to this section:

Research sub-question 4

‘...What factors are responsible for the divergences observable in the output rates (that is both dropout rates and performances) of students registered in both modes of delivery?’

Attempts were made through the questions posed in the questionnaire to investigate factors that contribute to student throughput rates and affect the completion or non-completion of their studies. Subsequently, the following was established from the findings:

- The majority of the students from Distance and Conventional Education regarded the quality of teaching offered during the BEd (Hons) study programme, offered by the University of Pretoria as being very good, in that the educational practices supported their learning. However, the researcher is of the opinion the university could still find the negative comments made by students useful, to further enhance its quality image.
- Most of the students from Distance and Conventional Education did not receive financial aid from the University of Pretoria. However, a small number of them had access to bursary funding; the majority of these students had taken out study loans, while only a minority group was financially responsible for their studies. This highlights the need to support higher education students financially, as many of these students had to cope with the financial burden on their own or drop out of the study programme, issues which become very relevant to this study.
- There were other commitments directly affecting students from Distance and Conventional Education, such as pressure from jobs and family commitments, amongst others. Nevertheless, the majority of these

students were highly committed to their studies, despite their tight schedules. Consequently, it is suggested that adult learners had a need to be highly motivated - especially those studying through the distance mode. Also, a very high majority felt they had made the right choice of course; and

- There were still unmet expectations students had of the university, as presented by the students, which, if considered, could be of benefit to the University of Pretoria.

6.3.1.5.1 Quality assurance process for students

Students from Distance and Conventional Education were asked questions in this section to give them an opportunity to be involved in the quality assurance process at this institution. The researcher is of the opinion that whatever information was gathered in this study could be useful to the university, as the findings may greatly complement the efforts made by the staff to enhance the quality of the teaching programme on offer. Table 6.30, represents the satisfaction levels of the respondents to the teaching programme:

a) Students' satisfaction with the program (question 67) and reasons for satisfaction (question 68)

Table 6.30: Respondents' satisfaction levels of the program (n = 172)

Respondents' Remarks	Distance Education		Conventional Education		Grand Total	Total %
	Total	%	Total	%		
Yes	123	92%	12	86%	135	91%
No	11	8%	2	14%	13	9%
Grand Total	134	100%	14	100%	148	100%

Missing frequencies: 24

In responding to the question of student satisfaction levels with the study programme, the following was indicated:

- 135 students (91%) from Distance and Conventional Education indicated their satisfaction with the entire programme; while only
- 13 students (9%) from both study programmes indicated they were not satisfied.

Giving reasons for their satisfaction, these students indicated: *good organization, good administration, qualified lecturers, relevance of the program to their present job and knowledge creation*. However, students from Distance Education indicated *high failure rate and lack of link between contact sessions and exams* as reasons for their dissatisfaction with the study programme, while students from Conventional Education indicated: *irrelevant modules and problematic module(s)* as reasons for their dissatisfaction with the study programme.

b) Suggestions for the improvement of the program (question 69)

Students from Distance and Conventional Education made the following suggestions to aid in improving the entire study programme:

- Bring contact sessions nearer to students by increasing the number of centres (e.g. reopening Hammanskraal campus and Free State – irrespective of the number of students – and opening a satellite campus in KwaMhlanga). Also mentioned was that many students arrived home very late in the evening and were tired to attend lectures the next day.
- Reduction of high registration and tuition fees.
- Provision of bursaries and subsidies.
- Provision of relevant materials for those in management positions.
- Applicability of what is learnt to the classroom situation.
- Addition of cassettes and DVDs to be used as teaching aids, because the support provided was not enough.
- Proper binding of learning materials.

- Provision of computer literacy classes.
- Provision of more contact sessions (e.g. conduct Saturday on a monthly basis) while some requested a reduction of contact hours and days.
- Programme should be more flexible.
- The need to guide against administrative lapses (e.g. the data from some registration forms were not captured onto computer before the exams, therefore some students could not write exams).
- Module designers to be available to students when needed.
- Provision of handouts.
- Feedback on assignments to be given on time.
- Guidance to be provided.
- Adequate time for the preparation of examination by shifting exam time from April to June.
- The need for knowledge on the scope of the examination and access to past examination question papers.
- Better pass rate and opportunity to write supplementary exams.
- More qualified and experienced lecturers
- The need to cluster certain modules because some of the modules seem to be repetitive.
- Provision of a library for students from Distance Education.
- Provision of accommodation (especially for students travelling a great distance to lectures).
- Management of the programme to consolidate the improvement made in 2006.
- University's newsletter and student cards to be made available to students from Distance Education.
- Wider advertisement of the program was recommended, as there were many others who could still benefit.
- Lecturers should be more representative of all races (if available).
- The Dean to avail himself to students on the first day of the contact sessions.

Implications of these suggestions for this study, in conjunction with reports from the qualitative interviews, would be given in the latter part of this study.

6.3.1.6 Discussion in terms of the first, third and fourth research questions

Since the questions posed in this section referred to the overall impression of students of the entire program, the researcher is of the opinion that these responses have further toadied in consolidating findings on sub-research question 4 (see Section 6.3.1.5).

The following can be deduced from the findings in this section:

- The majority of the students were satisfied with the overall study programme, emphasising good administration and qualified lecturers, to mention but a few; and
- The students gave many suggestions for further improvement of the BEd (Hons) study programme.

On the findings in this section, students' perception has been touted as being essential to measuring the quality of a program, which helps the university to not only compete for a high calibre of student and also to retain them (Du Toit, 2005). Also, Welch and Reed (2005:25) suggest that findings such as these 'can be used among other things for staff development, curriculum improvement and increasing learner access'.

Finally, all the responses given by the students have contributed to discovering the answer to sub-research question 1:

Research sub-question 1

'Why is distance education often seen as being inferior to traditional education when assessed in terms of access, delivery and outputs?'

All the issues raised above contribute greatly to improving the quality of a study programme. However, the implications of all these findings will be discussed in the latter part of this study.

6.3.2 Statistical comparison between the pass and failure rates of the BEd (Hons) Education Management, Law and Policy students

6.3.2.1 Introduction

This section reports on the comparisons of the performances of students from Distance and Conventional Education, the analysis of the data collected and the discussion of the findings. Firstly, the comparisons were based on the six study modules, each with its own code – as assigned by the management of the university – to assist in administrative purposes. These codes are presented in Table 6.31, followed by the pass and fail scores (Table 6.32), on which the comparisons were based.

The purpose of the comparisons was to report on the statistical significance between the scores of students from both modes that participated in the investigation. First, the chi-square test and Fisher's exact test – in which the level of significance was described as (α value is $p < 0.05$) - were applied to these figures to test whether there is a significant relationship in the pass and fail rate between the two modes of delivery. In addition, the Phi coefficient was used to test for the practical significance (effect-size) of the rates compared ($w = 0.1$ small-effect; 0.3 medium effect; 0.5 large effect). All these have been reported on to ascertain the reliability of the exact probabilities (see Chapter 5, Section 5.4.5).

Table 6.31: Comparison of the codes of the BEd (Hons) modules taken by contact and distance education students, who participated in the investigation

Modules	Mode of delivery	
	Contact	Distance
Financial Management in Education	FBO 730	FMO 711
Human Resources Management in Education	MBE 711	HRE 730
Foundations of Education Research	NME 715	NME 731
Education Law	OWR 730	OWR 721
Policy Studies in Education	PSE 722	BSO 730
Theories of Education Management	OWT 730	TEM 711

Also in this section, the chi-square tests were calculated to assess possible differences between the pass and fail scores of students from Distance and Conventional Education respectively. (These were based on the 2005 and 2006 examinations because, as earlier discussed in Chapter 3 (see Section 3.7) as the BEd (Hons) study programme at the Distance Education Unit was still being developed as at the time of this investigation.) In addition to this, the data revealed that students from Distance Education had more than one entry point for the examinations (i.e. April and October), while the students from Conventional Education had one entry point (October). A possible reason for this was because the former normally had two entry points of admission, while the latter only had one. Table 6.32, represents the scores upon which the tests were based:

Table 6.32: Examination statistics of BEd (Hons) students from distance and contact education who participated in the investigation between 2005 to 2006

CONTACT MODE										
MODULE	2005					2006				
	Number that wrote	Pass	Pass %	Fail	Fail %	Number that wrote	Pass	Pass %	Fail	Fail %
FBO 730	66	54	81%	12	19%	12	6	50%	6	50%
MBE 730	76	63	83%	13	17%	23	15	65%	8	35%
NME 715	153	136	88%	17	12%	129	107	83%	22	17%
OWR 730	66	61	92%	5	8%	58	45	78%	13	22%
BSO 730	51	48	94%	3	6%	51	51	100%	0	0%
OWT 730	70	52	74%	18	26%	11	5	45%	6	55%
DISTANCE MODE										
MODULE						Number that wrote	Pass	Pass %	Fail	Fail %
TEM 711										
April 2005						345	228	66%	117	34%
October 2005						357	278	78%	79	22%
April 2006						479	393	82%	86	18%
HRE 711										
April 2005						419	306	73%	113	27%
October 2005						523	303	58%	220	42%
April 2006						771	601	78%	170	22%
FMO 711										
April 2005						355	273	77%	82	23%
October 2005						461	387	84%	74	16%
April 2006						659	409	62%	250	38%
NME 731										
April 2005						333	290	87%	43	13%
October 2005						313	219	70%	94	30%
April 2006						488	400	82%	88	18%
OWR 721										
April 2005						358	272	76%	86	24%
October 2005						494	351	71%	143	29%
April 2006						709	553	78%	156	22%
PSE 722										
April 2005						341	259	76%	82	24%
October 2005						343	326	95%	17	5%
April 2006						451	410	91%	41	9%

The rates from the two entry points for the distance mode (2005), were firstly calculated as one entry examination point for each mode, and compared with the scores from the single entry point of the distance mode.

However for 2006, the scores were compared as a single entry point, because the scores of only one entry point were ready for the distance mode as at the time of the investigation. Thus, the hypothesis for these tests is:

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.

Furthermore, the section ends with the discussion of the findings, which include comparison with the findings of similar studies, speculations as to possible reasons for the divergences in student performances and comparison of findings with governmental policy documents. Finally, the implications of these findings for this study would be discussed in the latter part of this study (see Chapter 8, Section 8.5).

6.3.2.2 The use of statistical calculations to compare the pass and the failure rate of students based on the six modules under investigation

Tables 6.33 and 6.34 represent the results of the chi square tests when applied to the 2005 examination result of modules FBO 730 (Contact Education) and FMO 711 (Distance Education) respectively:

Table 6.33: Comparison of pass and failure rate on Financial Management in Education between contact and distance students at the 2005 examination (n = 882)

	STUDENTS		<i>P</i> value ²
	Contact (FBO 730)	Distance (FMO 711)	
Pass	54 (82%)	660 (81%)	
Fail	12 (18%)	156 (19%)	
Total	66	816	
Chi-square			0.8523
Fisher's exact test			1.0000
Phi-coefficient (effect size)			0.0063

From Table 6.33, out of the 66 students from Contact Education that wrote the examination for module FBO 730 in 2005, 54 students (82%) passed while 12 students (18%) failed. Conversely, 816 students from Distance Education wrote the examination of the same module (FMO 711), 660 students (81%) passed while 156 students (19%) failed. The chi-square test of the rates shows that there is no significant difference between the pass and the fail rates of students from both modes of delivery because ($p < 0.8523$), while Fisher's exact test is 1.0000. Also, the effect size of the test is small ($w < 0.3$). Therefore the hypothesis is accepted as the percentages of the performances of students from Distance and Contact Education were at par.

However, Table 6.34 presents a different picture entirely, when the tests of the rates for the single entry point for students from Contact Education, were compared with the two entry points of examination for students from Distance Education.

² The α value for the chi-square test is 0.05 ($p < 0.05$). Effect-size ($w = 0.1$ small-effect; 0.3 medium; 0.5 large). This applies to Table 6.33 to Table 6.50.

Table 6.34: Comparison of pass and failure rates on Financial Management in Education between contact (one entry point of exam) and distance (two entry points of exam) students at the 2005 examination (n = 882)

	STUDENTS			P value
	Contact (FBO 730) [October]	Distance (FMO 711) [April]	Distance (FMO 711) [October]	
Pass	54 (82%)	273 (77%)	387 (84%)	
Fail	12 (18%)	82 (23%)	74 (16%)	
Total	66	355	461	
Chi-square				0.0389*
Phi-coefficient (effect size)				0.0858

* $p < 0.05$
 () $w < 0.1$ (small effect)

From Table 6.34, of the 66 students from Contact Education who wrote the 2005 examinations, 54 students (82%) passed, while 12 students (18%) failed. This, in comparison to the students from Distance Education, representing that 273 students (77%) and 387 students (84%) passed the examination in April and October 2005 respectively, while 82 students (23%) and 74 students (16%) failed in the same examination session. According to the chi-square test ($p < 0.05$), there is a statistical significant difference between the three groups, that lies in favour of the contact group. Therefore, the hypothesis is rejected. However, the effect-size, is small ($w < 0.1$), which means that there is no practical significance difference between the performances of students from both modes.

Table 6.35: Comparison of pass and failure rates on Financial Management in Education between contact and distance students at the 2006 examination (n = 671)

	STUDENTS		<i>P</i> value
	Contact (FBO 730)	Distance (FMO 711)	
Pass	6 (50%)	409 (81%)	
Fail	6 (50%)	250 (19%)	
Total	12	659	
Chi-square			0.3939
Fisher's exact test			0.3885
Phi-coefficient (effect-size)			0.0329

From Table 6.35, it is evident that 12 students from Contact Education wrote the examination; 6 students (50%) passed while 6 students (50%) failed to pass. Conversely, of the 659 students from Distance Education who wrote the examination, 409 students (81%) passed and 250 students (19%) failed to pass the examination. In addition to this, both chi-square and Fisher's exact tests ($p < 0.05$) shows that there is no statistical significant difference between the pass and the failure rates of students from Distance and Contact Education, who sat for the same exam in 2006. This is because the p value ($p < 0.05$) is 0.3939. Also, the effect size is medium ($w > 0.05$), which shows that there is a practical significant difference between the two groups. Therefore, the hypothesis is accepted. However, the high performance of students is in favour of students from Distance Education.

In Tables 6.36 and 6.37 below, the chi square tests for the scores of MBE 730 (Contact Students) and HRE 711 (Distance Students) examinations for 2005 are presented respectively:

Table 6.36: Comparison of pass and failure rates on Human Resources Management in Education between contact and distance students at the 2005 examination (n = 1018)

	STUDENTS		P value
	Contact (MBE 730)	Distance (HRE 711)	
Pass	63 (83%)	609 (65%)	
Fail	13 (17%)	333 (35%)	
Total	76	942	
Chi-square			0.0012*
Fisher's exact test			9.691E-04
Phi-coefficient (effect-size)			0.1012

* $p < 0.05$
 () $w > 0.1$ (small effect)

From Table 6.36, statistics reveal that, of the 76 students from Contact Education that wrote the examinations in 2005, 63 students (83%) passed, while 13 students (17%) failed. In contrast to this, of the 942 students from Distance Education, 609 students (65%) passed, while 333 students (35%) failed to pass the examination. Statistically, this reveals that the null hypothesis (H_0) is rejected because there is a statistical significant difference between the population groups as p value ($p < 0.05$) for both the chi-square and Fisher's exact tests are less than 0.05. Additionally, the effect size is small ($w > 0.1$) showing there is no practical significant difference between the two groups. Nonetheless, this indicates that the students from Contact Education performed better in the examination than the students from Distance Education.

Continuing to compare the same examinations, but at two entry points for Distance Education, and one for Contact Education, Table 6.37, represents that of 76 students from Contact Education, 63 students (83%) passed, while 13 students (17%) failed to pass the examination. Conversely, of the 419 students from Distance Education who wrote the examination in April, 306 students (73%) passed, while 113 students (27%) failed to pass the examination. Additionally, of

the 523 students from Distance Education who wrote the examination in October, 303 students (58%) passed, while 220 (42%) failed to pass the examination.

Table 6.37: Comparison of pass and failure rates on Human Resources Management in Education between contact (one entry point of exam) and distance (two entry points of exam) students at the 2005 examination (n = 1018)

	STUDENTS			P value
	Contact (MBE 711) [October]	Distance (HRE 730) [April]	Distance (HRE 730) [October]	
Pass	63 (83%)	306 (73%)	303 (58%)	
Fail	13 (17%)	113 (27%)	220 (42%)	
Total	76	419	523	
Chi-square				0.0001*
Phi-coefficient (effect size)				0.1829

* $p < 0.05$
() $w > 0.1$ (small effect)

Statistically, this reveals that the null hypothesis (H_0) is rejected since p value is less than 0.05 ($p < 0.05$) between the groups thereby showing there is a statistically significant difference between the two groups. Also, the effect size is small ($w > 0.1$), which reveals that there is no practical significant difference between the two. However, the students from Contact Education did perform better during the examination.

Table 6.38: Comparison of pass and failure rates on Human Resources Management in Education between contact and distance students at the 2006 examination (n = 794)

	STUDENTS		P value
	Contact (FBO 730)	Distance (FMO 711)	
Pass	15 (65%)	601 (78%)	
Fail	8 (35%)	170 (22%)	
Total	23	771	
Chi-square			0.1490
Fisher's exact test			0.2003
Phi-coefficient (effect-size)			0.0512

In continuing with this study, in Table 6.38, the calculations for the tests for the same modules, described above, (but for the 2006 academic year) for students from both modes are presented:

From Table 6.38, of 771 students from Distance Education that wrote the examination, 601 (78%) passed, while 170 (22%) failed. Conversely, of 23 students from Contact Education who wrote this examination, 15 students (65%) from Contact Education passed, while 8 students (35%) failed. The statistics reveals that the null hypothesis is accepted, because p value ($p < 0.05$) for both the chi-square and Fisher's exact tests is greater than 0.05, which shows there is no statistical significant difference. However, the effect size is small ($w < 0.1$), indicating there is no practical significant difference between the test rates of the two groups. However, the test results indicate the students from Distance Education performed better in the examination.

Table 6.39, represents the calculations for NME 715 (Contact Students) and NME 731 (Distance Students) for 2005:

Table 6.39: Comparison of pass and failure rates on Foundations of Education Research between contact and distance students at the 2005 examination (n = 799)

	STUDENTS		P value
	Contact (NME 715)	Distance (NME 731)	
Pass	136 (89%)	509(79%)	
Fail	17 (11%)	137 (21%)	
Total	153	646	
Chi-square			0.0044*
Fisher's exact test			0.0042
Phi-coefficient (effect-size)			0.1007

* $p < 0.05$
 () $w > 0.1$ (small effect)

From Table 6.39 above, of 153 students from Contact Education who wrote the examination, 136 students (89%) passed, while 17 students (11%) failed. Conversely, of 646 students from Distance Education who wrote the examination, 509 students (79%) passed, while 137 students (21%) failed. Both chi-square and Fisher's exact tests indicate that p value ($p < 0.05$) is less than 0.05. This means that the null hypothesis is rejected, because there is a statistical significant difference between the two groups, which lies in favour of the contact students. Also, the effect size is small ($w > 0.1$).

Additionally, Table 6.40, reveals that of 153 students from Contact Education, 136 students (89%) passed, whereas 17 students (11%) failed the examination. Conversely, of 333 students from Distance Education that wrote the examination in April, 290 students (87%) passed, while 43 students (13%) failed. And of 313 students from Distance Education that wrote the examination in October, 219 students (70%) passed, while 94 students (30%) failed. From the chi-square test, it can be deduced that the null hypothesis (H_0) is rejected as the p value ($p < 0.05$) is less than 0.05, showing the contact students performed better. Also, the

effect size is small ($w > 0.1$) as it falls within the small and the medium range indicating no practical significant difference between the two modes.

Table 6.40: Comparison of pass and failure rates on Foundations of Education Research between contact (one entry point of exam) and distance (two entry points of exam) students at the 2005 examination (n = 799)

	STUDENTS			P value
	Contact (NME 715) [October]	Distance (NME 731) [April]	Distance (NME 731) [October]	
Pass	136 (89%)	290 (87%)	219 (70%)	
Fail	17 (11%)	43 (13%)	94 (30%)	
Total	153	333	313	
Chi-square				0.0001*
Phi-coefficient (effect size)				0.2195

* $p < 0.05$
() $w > 0.1$ (small effect)

Additionally, Table 6.41 shows the calculations for the same modules, but for the 2006 academic year:

Table 6.41: Comparison of pass and failure rates on Foundations of Education Research between contact and distance students at the 2006 examination (n = 617)

	STUDENTS		P value
	Contact (NME 715)	Distance (NME 731)	
Pass	107 (83%)	400 (82%)	
Fail	22 (17%)	88 (18%)	
Total	129	488	
Chi-square			0.7962
Fisher's exact test			0.8972
Phi-coefficient (effect-size)			0.0104

From Table 6.41, it can be seen that Chi-square calculations for NME 715 and NME 731, reveal that in 2006, of 129 students from Contact Education wrote the examination, 107 students (83%) passed, while 22 students (17%) failed. Conversely, of 488 students from Distance Education, 400 students (82%) passed, while 88 students (18%) failed. From the results of the test, it can be seen that both chi-square and Fisher's tests indicate a p value ($p < 0.05$) that is greater than 0.05, indicating no statistical significant difference. Also, the effect size is small ($w < 0.2$). Deductively, it means that the null hypothesis (H_0) cannot be rejected, because performances of students are at par.

Table 6.42: Comparison of pass and failure rates on Education Law between distance and contact students at the 2005 examination (n = 918)

	STUDENTS		<i>P</i> value
	Contact (OWR 730)	Distance (OWR 721)	
Pass	61 (92%)	623 (73%)	
Fail	5 (8%)	229 (27%)	
Total	66	852	
Chi-square			0.0005*
Fisher's exact test			2.017E-04
Phi-coefficient (effect-size)			0.1144

* $p < 0.05$
 () $w > 0.1$ (small effect)

Table 6.42, represents the calculations for OWR 730 and OWR 721 (2005) of students from Distance and Contact Education:

From Table 6.42, 66 students from Contact Education who wrote the 2005 examination, 61 students (92%) passed, while 5 students (8%) failed. Conversely, of the 852 students from Distance Education who wrote the examination, 623 students (73%) passed, while 229 students (27%) failed. Both chi-square and Fisher's exact tests indicate that the p value ($p < 0.05$) is less than 0.05. Therefore, the null hypothesis (H_0) is rejected because there is a

significant difference when the performances of students from both modes were compared, which revealed that the contact group presented a better overall examination result. Further, the effect size is small ($w > 0.1$) showing no practical significant difference between the two groups.

Table 6.43: Comparison of pass and failure rates on Education Law between contact (one entry point of exam) and distance (two entry points of exam) students at the 2005 examination (n = 918)

	STUDENTS			P value
	Contact (OWR 730) [October]	Distance (OWR 721) [April]	Distance (OWR 721) [October]	
Pass	61 (92%)	272 (76%)	351 (71%)	
Fail	5 (8%)	86 (24%)	143(29%)	
Total	66	358	494	
Chi-square				0.0007*
Phi-coefficient (effect size)				0.1264

* $p < 0.05$
 () $w > 0.1$ (small effect)

Table 6.43 represents the pass and failure rates for students during the 2005 academic year and shows calculations on OWR 721 (contact students), and OWR 730 (two entries for distance students). Of 66 students from Contact Education: 61 students (92%) passed, while 5 students (8%) failed. Conversely, of 358 students from Distance Education who wrote examinations in April, 272 students (76%) passed, while 86 students (24%) failed. Of 494 students who wrote the October examination, 351 students (71%) passed, while 143 students (29%) failed. It is shown that the p value ($p < 0.05$) is less than 0.05 indicating there is a statistical significant difference between the two groups of students. Therefore the null hypothesis is rejected, as the higher performance lies in favour of the contact group. Also, the effect size of the tests is small ($w > 0.2$).

Conversely, Table 6.44, represents the pass and failure rate of students during the 2006 academic year and shows that of the 66 students from Contact Education who wrote the examination, 45 students (78%) passed, while 12 students (22%) failed. Conversely, of the 709 students from Distance Education who wrote the examination, 553 students (78%) passed, while 156 students (22%) failed. The results of both the chi-square and Fisher's exact tests indicate that the p value ($p > 0.05$) is greater than 0.05, which means there is no significant difference, showing student performance for the two groups are on par with each other. Therefore, the null hypothesis is accepted. However, the effect size is small ($w < 0.1$), indicating that the significance of difference is not practical.

Table 6.44: Comparison of pass and failure rates on Education Law between contact and distance students at the 2006 examination (n = 767)

	STUDENTS		<i>P</i> value
	Contact (OWR 730)	Distance (OWR 721)	
Pass	45 (78%)	553 (78%)	
Fail	12 (22%)	156 (22%)	
Total	66	709	
Chi-square			0.9421
Fisher's exact test			0.1000
Phi-coefficient (effect-size)			0.0026

The calculations for BSO 730 (contact students) and PSE 722 (distance students) in 2005 are reflected below:

Table 6.45: Comparison of pass and failure rates on Policy Studies in Education between contact and distance students at the 2005 examination (n = 735)

	STUDENTS		P value
	Contact (BSO 730)	Distance (PSE 722)	
Pass	48 (94%)	585 (86%)	
Fail	3 (06%)	99 (14%)	
Total	51	684	
Chi-square			0.0869
Fisher's exact test			0.0994
Phi-coefficient (effect-size)			0.0631

Table 6.45, represents the pass and failure rates of Policy Studies, for the 2005 academic year and indicates that of the 51 students from Contact Education who wrote the examination, 48 students (94%) passed, while 3 students (6%) failed. Conversely, of the 684 students from Distance Education who wrote the examination, 585 students (86%) passed, while 99 students (14%) failed. Further, both chi-square and Fisher's exact tests indicate that p value ($p < 0.05$) is greater than 0.05, which shows that there is no statistical significant difference, as students' performances are on par with each other. Therefore, the null hypothesis is accepted. In addition, the effect size is large ($w > 0.5$), indicating that the significant difference is very practical.

Conversely, as represented in Table 6.46, calculations for the same module, but calculated as two entry points for Distance Education, reveals that of 51 students from Contact Education, 48 students passed, while 3 students (6%) failed. Conversely, 341 students from Distance Education, who wrote examinations in April, 259 students (76%) passed, while 82 students (24%) failed. And of the 343 students who wrote the October examination, 326 students (95%) passed, while 17 students (5%) failed. According to the results of both chi-square and Fisher's exact tests, p value ($p < 0.05$) is less than 0.05, indicating there is a statistical significant difference between the two groups, with the contact students

performing better. Therefore, the null hypothesis is rejected. Also, the effect size is small ($w > 0.1$).

Table 6.46: Comparison of pass and failure rates on Policy Studies in Education between contact (one entry point of exam) and distance (two entry points of exam) students at the 2005 examination (n = 735)

	STUDENTS			P value
	Contact (BSO 730) [October]	Distance (PSE 722) [April]	Distance (PSE 722) [October]	
Pass	48 (94%)	259 (76%)	326 (95%)	
Fail	3 (6%)	82 (24%)	17 (5%)	
Total	51	341	343	
Chi-square				0.0001*
Phi-coefficient (effect size)				0.2737

* $p < 0.05$
 () $w > 0.1$ (small effect)

Further, in Table 6.47, the calculations for the same modes in 2006 are presented:

Table 6.47: Comparison of pass and failure rates on Policy Studies in Education between contact and distance students at the 2006 examination (n = 502)

	STUDENTS		P value
	Contact (BSO 730)	Distance (PSE 722)	
Pass	51 (100%)	410 (91%)	
Fail	0 (0%)	41 (09%)	
Total	51	451	
Chi-square			0.0246*
Fisher's exact test			0.0148
Phi-coefficient (effect-size)			0.1003

* $p < 0.05$
 () $w > 0.1$ (small effect)

From Table 6.47, represents the rates of student performance for Policy Studies in Education, and indicates that: of the 51 students from Contact Education who wrote the examination in the 2006 academic year, 51 students (100%) passed. Conversely, of 451 students from Distance Education, 410 students (91%) passed, while 41 students (9%) failed. From these, both the chi-square and Fisher's exact tests indicate that the p value ($p < 0.05$) is less than 0.05, indicating that there is a statistical significant difference between the performances of the two groups, which lies in favour of the contact group. Therefore the null hypothesis is rejected. Also, the effect size is small ($w > 0.1$).

Tables 6.48, and 6.49, Indicates the calculations for Theories of Education Management (OWT 730 and TEM 711) in 2005, however with two and three entry points respectively:

Table 6.48: Comparison of pass and failure rates on Theories of Education Management between contact and distance students at the 2005 examination (n = 772)

	STUDENTS		P value
	Contact (OWT 730)	Distance (TEM 711)	
Pass	52 (74%)	506 (72%)	
Fail	18 (26%)	196 (28%)	
Total	70	702	
Chi-square			0.6942
Fisher's exact test			0.7801
Phi-coefficient (effect-size)			0.0142

Table 6.48, indicates that of 70 students from Contact Education, 52 students (74%) passed, while 18 students (26%) failed. Conversely, of the 702 students from Distance Education, 506 students (72%) passed, while 196 students (28%) failed. Further, both chi-square and Fisher's exact tests indicate that there is no statistical significant difference between the performances of the two groups, as the p value ($p < 0.05$) is greater than 0.05, indicating their performances are on a

par with each other. Therefore, the null hypothesis is accepted. In addition, the size effect is small ($w > 0.1$), showing that there is no practical significance of difference.

Table 6.49, indicates that of the 70 students from Contact Education, 52 students (74%) passed, while 18 students (26%) failed. Conversely, of the 345 students from Distance Education who wrote the April examination, 228 students (66%) passed, while 117 students (34%) failed. Additionally, of the 357 students from Distance Education who wrote the October examination, 278 students (78%) passed, while 79 (22%) failed. The calculations show that the p value of 0.0021 is less than 0.05. Therefore, the null hypothesis is rejected because there is a statistical significant difference between the performances of the two groups in favour of the contact group. Also, it has a small effect size ($w > 0.1$).

Table 6.49: Comparison of pass and failure rates on Theories of Education Management between contact (one entry point of exam) and distance (two entry points of exam) students at the 2005 examination (n = 772)

	STUDENTS			P value
	Contact (OWT 730) [October]	Distance (TEM 711) [April]	Distance (TEM 711) [October]	
Pass	52 (74%)	228 (66%)	278 (78%)	
Fail	18 (26%)	117 (34%)	79 (22%)	
Total	70	345	357	
Chi-square				0.0021*
Phi-coefficient (effect size)				0.1263

* $p < 0.05$
 () $w > 0.1$ (small effect)

The calculations for the same module, but for 2006, are presented in Table 6.50:

Table 6.50: Comparison of pass and failure rates on Theories of Education Management between contact and distance students at the 2006 examination (n = 490)

	STUDENTS		P value
	Contact (OWT 730)	Distance (TEM 711)	
Pass	5 (45%)	393 (82%)	
Fail	6 (55%)	86 (18%)	
Total	11	479	
Chi-square			0.0021*
Fisher's exact test			0.0078
Phi-coefficient (effect-size)			0.1388

* $p < 0.05$
 () $w > 0.1$ (small effect)

Table 6.50, represents the pass and failure rate of students that wrote the Theories of Education Management examination, during the 2006 academic year. Of 11 students from Contact Education, 5 students (45%) passed, while 6 students (55%) failed. Conversely, of the 497 students from Distance Education, 393 students (82%) passed, while 86 students (18%) failed. Further, both chi-square and Fisher's exact tests indicate that the p value of 0.0021 is less than 0.05. Therefore, the null hypothesis is rejected as the tests show there is a statistical significant difference between the performances of the two groups, which lies in favour of the distance group. In addition, the effect size is small ($w > 0.1$), showing there is no practical significance of difference.

6.3.1.7 Discussion in terms of the fourth research question

Of relevance to this section is a part of the research sub-question 4, which deals with the performances of students from both modes:

Research sub-question 4

'What divergences are observable in the output rates (i.e. performances) in both distance and conventional education and what factors are responsible for these?'

From Tables 6.33 to 6.50, it can be deduced that both the chi-square and Fisher's exact test, which are meant to measure the level of significant difference (see Chapter 5, Section 5.4.5.), show that of the eighteen (18) tables, half of them indicate *no significant difference* between the pass scores of students from Distance and Conventional Education, as p value is less than 0.05 ($p < 0.05$). Conversely, the other half shows that there is *a significant difference* between some scores.

While perusing through available literature on past comparative research on student performances in Distance and Conventional Education, even though there had been instances of significant differences, yet, tests have usually shown that there is *no significant difference* between the performances of the students (Meyer (2002); Zhao et al. (2004). For instance, of the 355 comparative studies which Russell (1999) reviewed, no significant difference was found in the performances of students from the two groups. In other words, this indicates that the achievement of students from Distance Education could be as good as their counterparts (Meyer, 2002). Other studies in support of this include Nielsen and Tutto (1993); Newlands and Mclean (1996); Sonner (1999); Spooner et al. (1999); Carr (2000); Johnson et al. (2000); Scoech (2000); and Magagula and Ngwenya (2004).

However, according to some recent studies by Shachar and Neuman (2003) and Bernard, (2004), a higher achievement by students from distance education have been recorded, as can be seen from Tables 6.35, 6.38, 6.46, 6.49 and 6.50. Giving possible reasons to support this, Magagula and Ngwenya (2004) cite Holmberg (1982), Perry and Rumble (1987) and Keegan (1990), who suggest that 'off-campus learners receive more direct learner support services through face-to-face tutorials than on-campus learners', which was the case of distance education students from the unit of study under investigation as some interviews revealed (see Chapter 7, Section 7.3.2). Echoing this, Machtmes and Asher (2000), and Zhao et al. (2004) predict better improvement of distance education

students as time goes on. In their own study in 2004, Magagula and Ngwenya are of the opinion that distance education students will always perform as good as their contact education counterparts, as long as they are provided with appropriate support services.

Lastly, the researcher is of the opinion that attention should, never the less, be drawn to cases in which students from Distance Education whose performance was lower than that of their contact education counterparts. According to Mostert (2006), a possible reason could be the low academic level of students before enrolling for a particular study programme. However, this might probably be related to the political history of the country, in which many *Blacks* were denied access to quality education (see Chapter 3, Sections 3.2 and 3.4). Also, it was revealed during the interviews, that lack of access to, for example – and for the purpose of this study – a law library (see Chapter 7, Section 7.3.1) for students from Distance Education, could be a possible reason for lower academic performance, and which could also be regarded as a form of support. In addition, considering the nature of conditions under which students from Distance Education study – as people having full-time jobs, family and social commitments – Van Schoor et al (2002) suggest poor time management as a possible reason for low academic performance. (This factor could be substantiated in that students from Distance Education requested help in this area.)

Finally, the last section in this chapter will deal with enrolment and graduation rates of students from Distance and Conventional Education.

6.3.3 Descriptive analysis of the enrolment, throughput and drop-out rates of both contact and distance education students enrolled for BEd (Hons) Education Management, Law and Policy (2002 – 2005)

6.3.3.1 Introduction

In accordance with one of the objectives of this study, (see Chapter 1, Section 1.4), this section deals with the comparison of the enrolment, throughput and

drop-out rates of students - from Distance and Conventional Education – who have discontinued their studies in the BEd (Hons) Education Management, Law and Policy study programme. This study covers the range of 2002 to 2005, and is based on the available data gathered during the course of this investigation. All the data on Distance and Conventional Education were based on the number of students that enrolled and completed within the shortest possible period for the study programme. It was also to keep this section separate from the comparison of the pass and failure rates dealt with earlier because the researcher was only interested in comparing the rates of enrolment, throughput and output from the data supplied by the Department of Administration, of the University of Pretoria, for both modes. Therefore, no statistical tests have been carried out.

As earlier discussed (see Chapter 1., Section 1.2; and Chapter 4, Section 4.4.3), literature abounds on the fact that the throughput rate of students from distance education is low in comparison to their contact education counterparts (Tinto, 1975; Carter 1996; Galusha, 1997; Perraton, 2000; Fraser & Lombard, 2002; Fraser & Killen, 2005). This is unfortunate and this has accounted for the main reason for the general impression that the former is not as good as the latter, especially in relation to quality.

In this section an endeavour is made to present the state of these matters at the University of Pretoria, by comparing and discussing findings from perused literature, and the benchmarks for throughput rates as approved by the government. However, the researcher had difficulty in joining the tables because of the different points of entry for both enrolment and examination for the two groups. In addition, there was no data available on the students from Contact Education of the same study programme in 2002.

Finally, it is important to note that according to one of the interviewees (P4 – see Chapter 7, Section 7.3.3.2), it might be too soon at the stage of this investigation to compare the throughput rates of Distance and Conventional Education, since

the offering of the BEd (Hons) study programme through Distance Education only started in 2002, meaning it was still at its developmental stage. But this study would be incomplete should this section be omitted, thus necessitating the comparison, deductions and the researcher has taken care not to be assertive when comparing and discussing aspect of this study, which have mostly been based on speculations.

Therefore, Tables 6.51 and 6.52 below should be interpreted as follows:

- In comparison to their Contact Education counterparts, the students from Distance Education had two registration periods in an academic year.
- They also had two examination opportunities, which accounts for some level of *openness* of the program and students could finish the 5-year programme within a minimum period of 2 years having written examinations at four entry points.
- Thus, it is possible to find in the table students who had completed their studies in a minimum period of two years; a minimum period + 1 other examination entry point; a minimum period + 2 examination entry points; a minimum period + 3 examination entry points and a minimum period + 4 examination entry points.
- These were added up to give the annual throughput rates of the students, but it also means that as at the time of this study, some students were yet to complete their cycle (i.e. minimum + 4 examination entry points), thus accounting for incomplete data of the students from Distance Education (see Table 6.52 below).

Nevertheless, though approaching the problem carefully, the researcher endeavoured to compare the enrolment and the throughput rates of the two groups.

Table 6.51: Enrolment and throughput rates of BEd (Hons) Education Management, Law and Policy contact education students (2003 – 2005)

Year	Enrolment	Graduated	Percentage
2003	123	4	3.25%
2004	184	74	40.2%
2005	144	65	45.1%

Adapted from University of Pretoria (2007)

Table 6.52: Enrolment and throughput rates of BEd (Hons) Education Management, Law and Policy distance education students (2002 – 2004)

Registration Period	Enrolled	Minimum		Minimum +1		Minimum +2		Minimum +3		Minimum +4		Grand Total of Graduation	Total Percentage
		Total	%	Total	%	Total	%	Total	%	Total	%		
Apr 02 - Sept 02	654	56	9	50	8	34	5	52	8	32	5	224	34%
Oct 02 - Mar 03	625	57	9	52	8	58	9	42	7			209	33%
Apr 03 – Sept 03	639	19	3	73	11	52	8					144	23%
Oct 03 – Mar 04	452	54	12	63	14							117	26%
Apr 04 – Sept 04	402	55	14									55	14%

Source: University of Pretoria (2007b)

Table 6.51 indicates that of 123 students from Contact Education that enrolled in 2003, only 4 students (3.25%) graduated within the 2-year period meant for this programme. Conversely, from Table 6.52, of 654 students from Distance Education that enrolled between April and September 2002, 224 students (34%) graduated. Similarly, this higher throughput rate by students from Distance Education was also repeated in April – September, 2003 period as Table 6.52 reveals that of 625 students from Distance Education, 209 students (33%) graduated within the minimum time (+ 3 examination entry points). In comparison, this shows a higher throughput rate amongst the students from Distance Education.

When placed side-by-side, the national benchmark of an expected 60% throughput rate for a Contact Education study programme, and an expected 30% throughput rate for a Distance Education study programme (see Chapter 3, Section 3.6.1), one might conclude that student performance in the Contact Education group for the period under review was much lower than the expected benchmark. Conversely, the student performance rate from Distance Education went beyond the benchmark for the study programme (34% and 33% respectively). This is despite the fact that complete data on student performance from Distance Education were yet to be available as at the time of this investigation.

Interestingly, this is a contrasting picture to the belief people generally have – locally and internationally – in regard to the expected throughput rates of students from the two delivery modes. Possible reasons for this are:

- The availability of support facilities for students from Distance Education,
- This may include quality learning materials,
- Good assessment methods,
- Motivation by supportive family or partner, and
- Constant communication between the university and the students, amongst others (Fraser & Nieman, 1995; McGivney, 2003; Shachar & Neuman, 2003; Bernard, 2004; Magagula & Ngwenya (2004).

However, Table 6.51 shows that by 2004, there was a sharp increase in the throughput rates of students from Contact Education. Of 184 that enrolled, 74 students (40.2%) graduated, which shows a higher performance rate than that of students from Distance Education (117 students (26%) of 452 students graduated during October 2003 – March 2004; and 55 students (14%) of 402 students graduated during April – September, 2004). However, it should be borne in mind that the students from Distance Education students, unlike their Contact

Education counterparts, were yet to reach their maximum completion time as at the time of this report.

Similarly, as shown in Table 6.51, in the 2005 academic year there was a sharp improvement in the throughput rate of the students from Contact Education. This was because of the 144 students that enrolled, 65 students (45.1%) graduated. The main reason for this phenomenon might be that, as the country emerges from its dismal political past, the academic level of prospective students is gradually improving, which subsequently leads to improved performance by the students from Contact Education, also bearing in mind that they now often have the support they need (Bornman, 2004; Mostert 2004). Unfortunately, as at the time of this investigation, no data for the same period was available for the students from Distance Education, as students were yet to complete their study cycle.

Nonetheless, one could agree with the prediction of scholars (Machtmes & Asher, 2000; Zhao et al. 2004) that should Distance Education maintain its performance and steadily improve on it, the possibility of attaining as good a result (Sonner, 1999; Carr, 2000; Scoech, 2000; Meyer, 2002) or even a better one in comparison to Contact Education.

In addition, Tables 6.53 and 6.54 below also show the drop-out rates of enrolled students from both modes of delivery:

Table 6.53: Drop-out rates of the BEd (Hons) Education Management, Law and Policy contact education students (2003 – 2005)

Year	Enrolled	Drop-out	Drop-out %
2003	123	2	1.63%
2004	184	9	4.89%
2005	144	8	5.56%

Adapted from University of Pretoria (2007)

Table 6.54: Drop-out rates of the BEd (Hons) Education Management, Law and Policy distance education students (2002 – 2005)

Registration period	Enrolled	Drop-out	Drop-out %
April 2002 -.Sept 2002	654	74	11%
Oct 2002 – Mar 2003	625	68	11%
Apr 2003 – Sept 2003	639	88	14%
Oct 2003 – Mar 2004	452	66	15%
Apr 2004 – Sept 2004	402	57	14%
Oct 2004 – Mar 2005	634	90	14%

Source: University of Pretoria (2007b)

In considering this matter, a comparison of the drop-out rates of students from Distance and Contact Education indicate that the drop-out rate of the distance group was higher throughout the periods under investigation, which – unfortunately – has been found to be the norm (Subotzky, 2003; Leppel, 2004). For instance, in 2003, of 123 students that enrolled for the Contact Education course, the number of drop-outs was 2 students (1.64%). In considering the drop-out rate for students from Distance Education, the following is to be found: of 654 students that enrolled between April and September 2002, the drop-out rate was 74 students (11%); of 625 students that enrolled for the between October 2002 – March 2003, 68 students (11%) dropped out, and out of 639 students for April – September, 2003, 88 students (14%) dropped-out of the study programme.

Similarly so, the trend in the drop-out rates for Distance Education continued for the following years: of 452 students registered for October 2003 – March 2004, 66 students (15%) dropped-out; of 402 students registered for April – September, 2004, 57 students (14%) dropped-out; and of 634 students registered for October 2004 – March 2005, 90 students (14%) dropped-out., was not different when compared to the drop-out rates of 2004 and 2005 for Contact Education, which

was 9 students (4.89%) of 184 students registered; and 8 students (5.56%) of 144 students registered, respectively.

6.3.1.8 Discussion of the findings in terms of the fourth sub-research question

Of relevance to this section, is the second part of the fourth sub-research question of the main research question, which investigates the divergences observable in the drop-out rates of students from both modes of delivery:

Research sub-question 4

‘What divergences are observable in the output rates (i.e. dropout rates) in both Distance and Conventional Education and what factors are responsible for these?’

The data concerning these students that was relevant to this study was made available by the Department of Administration, of the University of Pretoria, was compared, and the findings of the study have been highlighted under each table. However, the overall findings indicate that the throughput rate of the students from Distance Education was as good as that of the students from Contact Education and was even, in some cases, better (see Tables 6.51 and 6.52). Some of the possible reasons for this were given as good assessment method and motivation by supportive family or partner.

Similarly, comparison of the drop-out rates of students from both modes indicated that the rate of the students from Distance Education was higher than the rate of the students from Contact Education (see Tables 6.53 and 6.54). In reaction to this trend, various scholars have proffered possible reasons for this, which range from lack of academic, financial and family support; low academic level of students; low motivation on the part of the students; job and family responsibilities; ill health and HIV/AIDS amongst others (Fraser & Nieman, 1995; Sherry, 1996; Galusha, 1997; McGivney, 2003; Mostert, 2004). Conversely, it

has been argued that the high attrition rate in Distance Education, is not as a result of it being inferior to its conventional counterpart Tucker (2001), but has, rather, other underlying factors, some of which have been cited above.

Lastly, the researcher hopes to compare these quantitative findings with the findings from the qualitative interviews in the latter part of this study.

6.4 Summary

In Chapter Six, the findings, analysis and interpretation of the quantitative data have been presented, which included,

- Firstly, the descriptive analysis of findings in the responses from the questionnaire given to students registered for the BEd (Hons) study programme;
- Secondly, inferential statistics of the performances of students from Distance and Conventional Education, applied to test the level of significance of the scores, and
- Thirdly, a comparison of the enrolment, graduation and dropout rates of students from Distance and Conventional Education.

In Chapter Seven, the findings from the qualitative interviews with key role players will be reported on and interpreted. This is in the hope of deepening understanding on possible reasons for the findings of this chapter, and synthesizing both these reports in Chapter Eight.