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Open and distance learning staff development : an impact evaluation of a southern African collaborative programme.

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2008-06-18T10:06:15Z
http://hdl.handle.net/10539/4961

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CHAPTER 3

RESEARCH DESIGN, DATA COLLECTION AND ANALYSIS

3.1 INTRODUCTION

The research design, data collection, analysis and interpretation approaches used in this study are informed by the qualitative research methods falling within the models of evaluation as illumination (Parlett & Hamilton, 1975) and ODL programmes impact evaluation (McAnany, 1975).

3.2 RESEARCH APPROACH

In essence an evaluation of the impact of a programme means an interpretation of "worth or value" (Gooler 1979: 91) or what the programme has "accomplished" (McAnany 1975: 153) or "determination or representation of quality" (Stake 2004: 2). This, in turn, assumes a thorough understanding of the subject under review, because a sound knowledge of a programme forms the basis for meaningful evaluation. Both Gooler (1979) and McAnany (1975) use analogous "criteria" or "categories" to interpret the impact of ODL programmes and both recognise that such an interpretation should emanate from sound understanding of programmes under review.

McAnany (1975) notes that a "useful paradigm" for evaluating ODL programmes, in his case radio schools, is by using the criteria of effort, performance, adequacy, efficiency and process which respectively cover the amount of work to be done, the effect of programmes on their

audience, whether programmes address needs, whether they are the best way of meeting needs and whether programmes have failed or succeeded. Among these criteria are sub-dimensions that enable detailed description and analysis of each criterion. For example, under effort are dimensions of whether a programme has survived, diffused to other places, the number of people served and the quality of work performed which together cover both quantitative and qualitative aspects of a programme. By conducting a detailed analysis of a programme's implementation using the first four criteria (effort, performance, adequacy and efficiency) and their sub-dimensions, one is then able to approach the fifth and difficult criterion, process, which involves answering the question "why has a programme failed or succeeded?" from an informed base (McAnany 1975: 156)

Cookson (2002) recently used these criteria to assess access and quality in distance education and argues that McAnany's criteria serve very well as quality criteria. In this study these criteria are used to gauge impact after achieving an understanding of the programme and identifying the issues emerging from the programme's implementation. In other words, they are used to interpret the implications of identified emergent issues for the CDEP programme's impact and/or quality. They are, thus, interpretation tools used to gauge the CDEP's impact and or quality and are not mere pre-specified standards used for measurement.

The programme under study, the CDEP, is concerned with implementation of a curriculum. Grounded techniques are the tools for achieving the understanding and knowledge required by this study including description and interpretation. These techniques encourage rigorous research but recognise that people differ from inanimate natural phenomena and that in social research reality is not neutral but is the result of individual cognition. An understanding of

how people make sense of their every day life which consists of multiple realities emerging from daily interaction with others is something that cannot be achieved through traditional natural science research methods. These latter methods tend to focus on required standards, pre-specified criteria and numerical results and neglect data deemed to be subjective and anecdotal like the every day life experiences of the subjects under study. Techniques from McAnany (1975); Parlett & Hamilton (1975 & 1997), Spradley (1979), Wolcott (1984), Fetterman (1995) and Stake (1975; 2004) that are used in this study, acknowledge that research of educational innovations should include the interrogation of complex and diverse learning milieu within which such innovations take place. They facilitate focussing progressively on emergent issues. These techniques include comparisons, identifying matches and mismatches of programme purposes as described in programme planning documents and the day-to-day reality of programme implementation within the learning milieu. The aim of this interrogation is to uncover practices, establish positions, discrepancies between practices and precepts in order to gauge impact.

But these techniques do not necessarily exclude quantitative approaches. A combination of approaches is often used to present different angles on a common problem depending on what is best for a specific purpose (Parlett & Hamilton 1975). This study is using both approaches, qualitative and quantitative, for specific purposes as described later in this chapter. Concentration on only one approach denies the research the benefits of other approaches and Stake (2004) asserts that if qualitative research methods were as dominant in earlier years as the quantitative methods, he would have remained a promoter of the method that was seldom used:

> I have been advocating more use of qualitative methods over the years. But I know that if there had been as much emphasis on qualitative evaluation methods as there was on quantitative methods, I would have remained a promoter of quantitative methods. So by the time I wrote this book, the most frequent thing I have to say is "You have to use some of both" (Stake 2004: xii).

A conceptual framework of the approaches used in this study is presented in Figure 3.1. This depicts the broad context within which this study locates the CDEP programme and the different stages of the evaluation including and the interpretation of impact based on McAnany's (1975) criteria.

The top half of the Conceptual Framework's represents the broad context which informs this study, namely ODL conceptions and practices internationally but with a focus on the Africa region and, in particular, the five SADC countries that participated in the CDEP. Below this section are the four stages of the evaluation, that is, familiarisation, postal survey, non-participant observation and in-depth interviews. The first two stages of the data collection methods were expansive in approach and aimed to get a broad understanding of the programme and some of the issues that have a direct bearing on the CDEP, for example ODL policy, collaboration, staff development and impact evaluation. Because of their expansive nature, the first two stages are located in the broad first half of the circle. During the last two stages, on the other hand, progressive focusing on the issues as they emerged was introduced and this is represented as a tapering funnel shaped section inside the circle.

The bottom part of the framework represents the interpretation of impact using McAnany's (1975) five criteria.

The internal lines dividing the various parts of the circle are dotted to indicate that all the parts of the conceptual framework are inter-linked and the process of reaching understanding and interpretation of the programme is dynamic and continuous. The use of both qualitative and quantitative data during the different stages of the evaluation provided confirmation or corroboration of data through triangulation and also provided a much richer interpretation of the CDEP impact (Miles & Huberman 1994: 44).

3.3 RESEARCH SAMPLE

This research was conducted in DEASA member organisations that participated in the CDEP during the period under study, 1997-2000, as programme providers and/or as users who enrolled their staff on the CDEP and provided part sponsorship for enrolment fees. Some user organisations also served as providers of face-to-face tutorials for learners, while one organisation, UNISA, operated both as a provider and user. On the list of organisations presented below, the total number of participating organisations is, thus, 21 and not 22 because UNISA is listed in the provider section only. All these organisations are located in the five SADC countries of Botswana, Lesotho, Namibia, South Africa and Swaziland, see Figure 3.2 below.

Figure 3.2: List of CDEP participating organisations

CATEGORY	COUNTRY	ORGANISATIONS
a) Providers	South Africa	1. University of South Africa - Institute for Continuing Education (UNISA-ICE) 2. South African Committee for Higher Education Trust - Distance Education Training Unit (SACHED-DETU)
b) Users	Botswana:	3. Botswana College of Distance and Open Learning (BOCODOL) 4. University of Botswana-Centre for Continuing Education (CCE) 5. Ministry of Health-Nursing Education Programme (MOH)
	Lesotho:	6. Lesotho Distance Teaching Centre (LDTC) 7. National University of Lesotho - Institute of Labour Studies (ILS) 8. National University of Lesotho - Institute for Extra-Mural Services (IEMS)
	Namibia:	9. University of Namibia-Centre for External Studies (CES) 10. Namibia College of Open Learning (NAMCOL) 11. Namibia Polytechnic (NP), now called Centre for Open and Lifelong Learning (COLL)
	South Africa:	12. Open Learning Systems Education Trust (OLSET) 13. University of South Africa (UNISA) 14. Technikon Southern Africa (TSA) 15. University of Fort-Hare Adult Basic Education Project (ABEP) 16. South African College of Teacher Education (SACTE)
	Swaziland:	17. University of Swaziland - Institute for Distance Education (IDE) 18. Emlalatini Development Centre (EDC) 19. University of Swaziland - Department of Extra-Mural Services (DEMS)
c) Sponsors	Canada Namibia / South Africa#	20. Commonwealth of Learning (COL) 21. Distance Education Association of Southern Africa (DEASA)*

 # DEASA Secretariat was located in these countries during the course of this study

** DEASA merely acts as a negotiator, securer and manager of the sponsorship from both COL and member organisations. It does not contribute funds.*

The research used a "broad net" sampling approach that aimed to get access to as many participants as possible (Fetterman 1989: 42) and which is an efficient way for large-scale

data collection (Fetterman 1989: 64). The relative small size of the CDEP population, the need to give every participating group or individual a chance to air its or his/her views about this DEASA collaborative venture and the researcher's interest in assuring greater representativity are some of the reasons for this approach. The broad-based familiarisation and survey were also useful for identifying major themes and drawing "clearer geographical and conceptual boundaries" (Fetterman 1989: 18). The expansive nature of this approach provided a broad, macro and panoramic view of the different aspects and issues of the programme.

Concretely, the "broad net" approach began with a two pronged strategy:

a) A thorough familiarisation with the programme through non-participant observation at some of the participating institutions coupled with reading programme documents and attending DEASA regional meetings. This provided understanding of those elements of the programme which, as one of the managers of the CDEP, I had very little information on. The elements fell within the instructional system including the ODL context informing the delivery of the programme within the learning milieu. A general sense of the CDEP's participants' views on the programme was established and this informed the next strategy.

b) A survey by means of postal questionnaires sent during the early stages of the research (October 1999 and early 2000) to the three categories of CDEP users: DEASA member organisations, learners and tutors within the organisations listed in Figure 3.2. The questionnaires were slightly modified to cater for these three different categories of users. The survey's sample was senior organisational representatives within the 17 user organisations, 157 past and present CDEP learners

for the period 1997 – early 2000 and all tutors (10). 20 of the year 2000 learners had not yet registered when the last questionnaire reminder was despatched; hence the total of 157 instead of 177, the final total registration for this period. This makes a total of 184 for all three categories of CDEP participants. The providers and sponsors groups were at this stage not included, except where some of these were tutors because the intention was to focus the survey on learning and teaching within the learning milieu.

The above strategy informed the next two stages of the study, namely, non-participant observation in selected organisations and in-depth interviews with key informants, which were much narrower and intensive in focus. Data from the earlier stages, familiarisation and questionnaires, highlighted some of the emergent issues, sites and key participants for the next level of data collection, namely non-participant observation and interviews. Through the method of progressive focussing the original total sample was narrowed after the postal survey stage until at the semi-structured in-depth interview stage a few central figures, or key informants were the focus. Progressive focussing ensured that unique and unpredicted issues were given due weight (Parlett & Hamilton 1975).

3.4 DATA COLLECTION

An evaluation of the CDEP was agreed at the 23 – 25 October 1998 DEASA Meeting, but the nature of the evaluation and access to individual DEASA member organisations were negotiated in 1999.

During the four types of data gathering stages: familiarisation including exploration and analysis of relevant documents; postal questionnaires; non-participant observation; and semi-structured in-depth interviews, data was recorded through written summaries of documents and field notes and audio recordings.

3.4.1 Familiarisation

Negotiation of access to DEASA member organisations, learners and tutors which began in 1999 continued according to the various stages of this study until 2005. The purpose of the 1999 access was to familiarise myself with the CDEP implementation in different organisations and countries. Familiarisation visits took place in South Africa (visit to a learner working at a rural learning centre on 12 March 1999), in Botswana (visit to one of the participating organisations on 16 - 20 April 1999) and Lesotho (visit to one participating organisation after attending the DEASA Regional Meeting in September 1999).

At the DEASA Regional Meeting of September 1999 the research proposal was presented and approved. It was crucial during these early stages of the research to show members how this research links to the DEASA programmes and research strategy as agreed in 1998 and to win the support of all member organisations, particularly because the research entailed working with organisations and informants for a long period of time. One of the incentives presented by the researcher was regular progress reports at biannual meetings of the association and assistance with the development of proposals for yearly learner sponsorship. Both these promises were carried out during the five years of the study.

Once DEASA approval of the research was confirmed, lists of CDEP learners in each of the organisations were drawn up. The questionnaire was developed and preparation for sending

them to participants started. Access was also negotiated directly with participating individual organisations for observation of practice and interviews with participants, both learners and managers. Access to SACHED/UNISA-ICE had been approved much earlier soon after the signing of the collaboration agreement between the two organisations. This research was seen as serving the purpose of the evaluation that these two institutions had agreed to implement in their contract of agreement.

As one of the managers of the CDEP, I had some knowledge of the instructional system, that is, the abstract plan or blueprint (Parlett & Hamilton 1975) of the programme and had access to relevant documents of the providing organisations, SACHED-DETU and UNISA-ICE. But my knowledge of the actual implementation details, especially the centralised UNISA head-office coordination and administration, learner support services provided within each country and the day-to-day aspects of the CDEP delivery, was, very limited at the beginning of this study. The participating organisations' policies and other instructional system-related information was to a limited extent known through my participation in DEASA, but this knowledge was not thorough enough to meet the requirements of this study. Neither were these organisations' actual implementation practices, their reasons for participation and roles within the programme, well known to me.

For the purpose of addressing Question 1 of the research, it was, therefore, important to analyse relevant ODL policy documents of all participating organisations including other related documents about ODL provision and practices, for example the SADC Protocol on Education and Training and ODL collaboration activities in the region and internationally. The documents helped to build an understanding of the programme's aims and objectives, implementation details and the broad context within which the programme operated. Data

collected included CDEP participants per country, location, dates and duration of activities, ODL systems of each country/organisation, policies and other relevant activities.

The central aim was to develop an understanding of the instructional systems within which the CDEP operates, to compare and contrast regional, national and institutional systems and framework of the blueprints which were meant to guide programme implementation. This understanding facilitated observation during field visits and allowed easier identification of the programme's matches and mismatches within the learning milieu which emanate from the fact that:

> ... the instructional system, when adopted, undergoes modifications that are rarely trivial... Its constituent elements are emphasized, expanded or truncated, as teachers, administrators, technicians and learners interpret and re-interpret the instructional system for their particular setting (Parlett & Hamilton 1975: 82).

The familiarisation with the CDEP instructional system also guided the development of the questionnaire and the questions asked during observation and in-depth interviews.

3.4.2 Postal questionnaires

Informed by familiarisation described in 3.4.1, a draft questionnaire was then developed and piloted with two CDEP learners from UNISA, an administrative staff member with only a Senior Certificate qualification and a National Learner Support Administrator with a post-graduate qualification. The purpose was to establish whether the questions would be understood by two educationally different levels of CDEP learners (graduates and those with

secondary education qualifications). Feedback from this piloting was incorporated and the questionnaire was modified to suit the three categories of CDEP participants, namely learners, tutors and organisations.

All three questionnaires used (learners, tutors and organisations) had two parts. Copies of the three questionnaires are included as Appendices 1, 2 and 3. For easier differentiation of the three questionnaires, different coloured paper was used. The learner questionnaires were printed on green, the tutors on white and organisations on pink papers.

Section A of the questionnaire covered biographical data, for example, the name of organisation, job title of respondent, number of years' experience in this job and years of participation in the CDEP. The organisations' questionnaire also included date of establishment of the organisation and number of staff enrolled in the CDEP. There were in this section of the questionnaires a few closed-ended questions requiring mere ticking of the correct information covering country of residence, duration of employment and years of participation in the CDEP. This kind of profile details provided useful inter-organisational and participants comparisons.

Section B covered information on the CDEP's relevance to needs and jobs, reasons for participation, weaknesses, strengths, and required improvements. The questions asked in Section B were open-ended in nature capturing a range of views and supplying a "frame of reference for respondents' answers by put(ting) a minimum restraint on the answers and their expressions" (Cohen & Manion 1987: 297).

To maximise questionnaires' returns, this study used some of the methods recommended by

Cohen & Manion (1987: 108-113) relating to the design and purpose of the questionnaire. The design and layout of the questionnaires aimed at clarity, attractiveness and logical grouping of issues. This was achieved through the use of different type faces, division of the questionnaire into two sub-sections separating the closed-ended biographical section from the open-ended questions that needed personal views. Each open-ended question had enough blank spaces for responses and there was provision for any other comments at the end of the questionnaire.

A covering letter indicating the aim of the survey, assuring confidentiality and encouraging a speedy reply, was included with the questionnaire, see Appendix 4.

Questionnaires were sent out for the first time on 11 October 1999 to the total CDEP population for the period 1997 – 1999, that is, all the learners enrolled on the CDEP, all the organisations participating as users and employers of these CDEP learners and all the tutors. Follow-up mechanisms used were letters of reminder enclosing an additional copy of the questionnaire and follow-up telephone calls.

By 25 November 1999, completed questionnaires had been received from 8 organisations, 3 tutors and 20 learners. Postal reminders were despatched on 26 November 1999 followed up with telephonic contacts during the first week of December 1999. Reminders were again despatched by post on 28 February 2000. The February despatch included newly registered 2000 CDEP learners. A verbal progress report on questionnaire returns was presented at the March 2000 DEASA meeting and organisations were reminded to return their questionnaires and also asked to encourage their staff to return questionnaires to facilitate the completion of a detailed report for the next DEASA Regional Meeting.

The responses were analysed and a preliminary report was presented to the DEASA March 2001 Meeting based on the 59 (31%) responses received by March 2000, that is excluding the additional 8 responses received late in December 2000. The final total returns was 67 (36,4%) completed questionnaires. The breakdown of the 67 questionnaire returns was as follows:

Figure 3.3: Questionnaire returns

ORGANISATIONS		RETURNS			TOTAL
NAME	LEVEL	ORGANISATIONS	LEARNERS	TUTORS	
1. ABEP	A	-	1	-	**1**
2. BOCODOL/DNFE (2)	S & A	2	4	1	**7**
3. CCE	H	1	1	-	**2**
4. CES	H	1	7	1	**9**
5. DEMS	H	-	1	-	**1**
6. EDC	S	1	3	-	**4**
7. IDE	S	1	1	-	**2**
7. LDTC	S & A	1	6	1	**8**
8. NAMCOL	S	1	5	-	**6**
9. NP	H	-	1	-	**1**
10. SACTE	H	1	2	-	**3**
11. UNISA	H	1	20	1	**22**
12. SACHED	H	-	-	1	**1**
TOTAL	**-**	**10**	**52**	**5**	**67**

NB: BOCODOL and DNFE submitted two questionnaires because by the end of 1999 they were two separate organisations.

KEY: A = Adult Basic Education Organisation
S = Secondary Education Organisation
S & A = Secondary Education and Adult Basic Education Organisation
H = Higher Education Organisation.

The percentage returns for each of the three categories were: organisations 58,8% (10 out of a total of 17 organisations); learners 33% (52 out of 157) and tutors 50% (5 out of 10).

3.4.3 Non-participant observation

Non-participant observation, that is, not engaging in the activities being observed or "eschew(ing) group membership" (Cohen & Manion 1987: 122-3), was used for two purposes. The first purpose (informed by observations during the familiarisation stage, that is the first visits to a South African rural learning centre and a Botswana organisation) was mainly to get to know the CDEP learning milieu and to confirm some of the issues identified from perusal and analysis of CDEP and DEASA documents during the familiarisation stage. The second purpose, which was the focus of the later observations, was to follow-up issues emerging from the questionnaire responses by observing how these issues are experienced in the day-to-day operational lives of the participants and discussing of the reasons for these situations.

The first familiarisation field work period (the March - April 1999 South African and Botswana visits) covered a weekend and two weeks respectively. During the South African visit, a CDEP learner who worked as an administrator in one learning centre was observed interacting with learners and carrying out her administrative duties of providing information to students, registering them for tutorials and compiling records. This learning centre is one of the biggest in this organisation and the administrator had a very full workload on a Saturday. During the few short breaks available there were informal discussions on the CDEP's relevance to her work and some of the problems encountered.

The Botswana visit was combined with my institution's two week learner support assignment. This gave me a longer period of observation than the originally envisaged one week. Because the organisational assignment involved an evaluation of the Botswana organisation's learner support system, the 4 CDEP learners observed had an opportunity to assess the strengths and weaknesses of their work situation not merely to meet the needs of my research but also for contributing to the improvement of their work situation. The benefit of this visit for this study was that it enabled me to observe the CDEP learners in actual work contexts and also provided an opportunity to follow-up issues as they arose. I was, thus, able to observe the daily work routine of CDEP learners on site and to uncover firsthand issues that they have to grapple with daily. I was also able to informally discuss these issues with the 2 senior organisational representatives who were present. There was enough time to also discuss the tutoring and learner support issues directly with the Botswana tutor responsible for the local support of these learners. In addition the visit helped to pilot the questions for inclusion in the questionnaire.

The next field visit which also fell within the familiarisation stage was the Lesotho September 1999 visit which was much shorter than the other two consisting of about 2 hours. This visit was undertaken after attending the DEASA Meeting and involved observing the workplaces of two of the CDEP learners and informal discussions on the nature of their jobs and progress with their studies.

The next level field visits, that is those that took place after the postal survey, were undertaken in March and April 2002 to observe and begin in-depth interviews with key participants. In March 2002 a non-participant observation of a South African learning centre where one of the CDEP 1999 learners worked as a Coordinator was carried out. South

Africa was selected because it is both the providing country and the second major user of the CDEP. Also, both South Africa and Namibia had in 1998 received additional sponsorship from COL to enable tutors in rural and remote learning centres to enrol on the CDEP. The South African learning centre selected is located in a rural town and caters for higher education tutorial support. It thus provided a contrast to the observation of the Namibian organisation described below and that of the Botswana organisations visited during familiarisation which are both secondary education providers. On the day of the South African learning centre visit a tutor training workshop was in progress and the CDEP learner's presentation during the workshop was observed and thereafter an informal discussion on the contribution of the CDEP to the learner's ability to do her job effectively was held with the learner, the Director and another senior management staff member of the tutorial programme.

In April 2002 a Namibia field visit was undertaken. Namibia was selected because it was the largest user of the CDEP. The three Namibian organisations enrolled 63 learners (36%) out of a total enrolment of 177 over the period 1997 – 2000. The duration of the Namibian visit was two days and the purpose was to interview a random sample of learners from two Namibian organisations that were major users of the CDEP on some of the emergent issues from the questionnaires and earlier field visits. Over the two days nine learners (14% of the Namibian enrolments) were interviewed out of the ten that had been selected. Only one learner could not attend because of a family emergency. As this visit covered only urban CDEP learners from these two organisations, it was important that a rural element be included as well. A follow up one day visit was arranged in September 2002 to carry out non-participant observation of a Namibian CDEP former learner working at a remote rural learning centre in the northern part of the country. The nature of the work done by this

learner was observed including a visit to a remote satellite learning centre that fell under this learner's coordination responsibilities. It was not possible to meet with senior management during both these Namibian visits, but the in-depth interviews arranged later with key management informants from Namibia addressed this initial hurdle.

The overall purpose of the different observation visits was to ensure coverage of different learner educational qualifications and organisations' level of provision, that is, CDEP learners with secondary education only or those with graduate qualifications and organisations offering secondary and tertiary education. Both urban and rural operations were also covered.

These observation sessions covered a total of 44 participants from the three user groups as indicated in figure 3.4 below:

Figure 3.4: Observation sample

COUNTRY	DATE	LEARNERS	MANAGEMENT	TUTOR	TOTAL
Botswana	6 – 16 April 1999	4	2	1	**7**
South Africa (2 visits)	12 March 1999 19 March 2002	1 1	- 2	- -	**1** **3**
Lesotho (2 visits)	15 Sept 1999, 21 Sept 2004	2 20	- 1	- -	**2** **21**
Namibia (2 visits)	5 April 2002, 20 Sept 2002	9 1	- -	- -	**9** **1**
Total		**38**	**5**	**1**	**44**

Data collected from these field visits were to address Questions 2, 3 and 4 of the study from the perspectives of providers and users and with the specific purpose of obtaining qualitative details on emergent issues that the questionnaire would not have captured and also to corroborate the issues raised from questionnaire responses. In line with the requirements of

Question 2 data collected contributed to gauging the impact of the CDEP as a staff development programme using ODL methods, particularly how and in what way/s it is equipping practitioners for changing and improving institutional provision. The actual in-context interactions, views, concerns of the participants were observed, clarified in informal discussions and noted. Data for Question 3 was on what practitioners actually do in their respective learning milieux, including their beliefs, expectations, successes and problems in the learning and teaching process and application of the CDEP precepts in the work environment. Some of the specific details were participants' roles in their organisations, what kind of work they do, how this is informed by what they learned or are learning from the CDEP, how they are supported by their tutors, by UNISA-ICE/SACHED-DETU and by their organisations and what difficulties and successes emerge from all this. For Question 4 the data collected was on the role of collaboration in all these issues, how it facilitates or thwarts implementation.

Non-participant observation, thus, provided an opportunity to enter into dialogue as well as follow-up issues with the subjects of the research for the purpose of clarifying observations and interactions and other issues as they arise, that is "discovering categories of meaning in culture" (Fetterman 1989: 48). Through this exposure to the actual implementation processes and procedures, details of the programme and stakeholders' (learners, tutors and participating organisations) behaviour, perceptions and practices, an understanding of the nature and multiple realities of the programme, an "insider vie*w"* or *"*emic perspective" (Fetterman 1989: 30) evolved. This provided a clearer understanding of the CDEP "culture", that is, culture as a human agency that encapsulates not only "observable patterns of behaviour, customs, and ways of life but also ideas, beliefs and knowledge" (Fetterman 1989: 27).

The visits also assisted in the collection of additional relevant documents and in clarifying the researcher's understanding of institutional policies, conceptions and practices of ODL as gleaned from organisational, national and SADC policy documents.

During field visits, the interactions, observations, informal remarks and discussions with all stakeholders were recorded as field-notes from which emerging patterns of behaviour and natural language were analysed, progressively, to identify patterns of matches and/or mismatches with the programme's framework of aims and objectives and with the theoretical understanding developed from the analysis of the instructional systems.

3.4.4 Semi-structured in-depth interviews

Semi-structured in-depth interviews were used in the last stage of the fieldwork to focus on the key emergent issues with key informants from the three different categories of participants that is organisational management, tutors and learners. The interviews were conducted between 2004 and 2005. The last round of in-depth interviews was conducted in 2005, that is after an analysis of the emergent patterns had been concluded and the key issues became much clearer to the researcher. The purpose of this last round of interviews was, thus, to probe further, clarify and contrast the issues to ensure deeper understanding that is necessary for full description of the programme.

Four key informants were identified from the three groups of participants. The informant from the tutor category was chosen because he was very knowledgeable about tutoring and assessment strategies of the CDEP and the difficulties experienced in introducing such programmes in higher education organisations. In addition he was: a very vocal DEASA members who supported the CDEP as a good orientation programme for ODL staff;

instrumental in getting the COL sponsorship for DEASA members on this programme and in negotiating for an increase of the sponsorship from 50% to 75%; occupying a very senior position in his organization; an important representative of the CDEP user group and the longest serving CDEP tutor and external examiner**.**

From two organisations key informants were selected because of their knowledge of the programme, their organisations' active involvement in the programme and because they represented two different countries: one highest user and the other third highest user and both providing secondary and basic education programmes.

The learner informant was chosen because he knew the programme well and despite his post-graduate qualifications had completed his CDEP studies and was said to have changed his job as a result of his CDEP studies. He was also working in a large learning centre located in one of the rural towns of the providing country.

The interviews focused on the experiences of the key informants and were used to "test the validity" of the emergent central issues (Cohen and Manion, 1987: 310). In comparison with the other stages, the in-depth interviews stage is intensive in approach.

The interviews were semi-structured, that is, they had a pre-determined sequence and wording of questions in order to "serve comparative and representative purposes" and to put the responses in the "context of common group beliefs and themes" (Fetterman 1989: 49). To allow for greater flexibility and possibilities for probing, open ended questions formed the bulk of the interview schedule (Cohen & Manion 1987: 293). A Sample Interview Schedule is included as Appendix 5.

The interviews were either conducted face-to-face and audio recorded or responses were solicited by e-mail, that is, in the case of informants who no longer resided in Southern Africa or as a follow-up to initial face-to-face interviews where the interviewee felt he/she had omitted something in the face-to-face interview or there were issues needing further clarification.

3.5 VALIDITY OF DATA

One of the central criticisms of qualitative research is related to the validity of its data and findings, given its subjective nature and lack of precise and quantifiable measures that usually form part of experimental research. This criticism is related to both external (that is applicability of the results across situations) and internal validity (that is whether the results of the research represent "the real thing, the genuine product") of qualitative research (Cohen & Manion 1987: 125). Factors affecting internal validity include subject variability, size of the population, time given for data collection, history, attrition and maturation. (http://linguistics.byu.edu/faculty/henrichsenl/research.methods/RM_2_18.html. This study addressed these issues in various ways. The expansive nature of the study, starting with questionnaires sent to solicit views and issues from all the CDEP learners enrolled during the years 1997 – 2000 including participating organisations and tutors, ensured that the views of most participants, except those who chose not to respond or were unavailable, were heard. Thereafter, progressive focusing on emerging issues covered the views of key informants from all the three groups of CDEP participants: learners, organisations and tutors The period for data collection was spread out over a long enough time, 1999 – 2006 to enable follow-up of issues as learners applied their knowledge and skill on the job and as data was progressively analysed. This period also enabled extensive interrogation of the programme's

history and current practices from various documents, but was not too long for participants to have forgotten about the nature of the programme. Regular progress reports to stakeholders kept the evaluation current in participants' minds. The small and close knit DEASA community facilitated access to even those participants who had changed jobs and/or had dropped out of the programme.

With regard to personal beliefs and perspectives, the fact that this researcher is currently the Head of the Institute that is offering the CDEP and is, therefore, familiar with the programme could present problems. I brought to the research my personal views and biases about what the real issues could be and where they are likely to be found. For example, prior to the research I believed that the CDEP learners were doing very well in their studies and that ICE's support was good. Also, we, ICE staff, believed that the main area of concern was the late registration of learners due to the late approval of sponsorship. However, the use of triangulation methods and exposure to the multiple realities of the subjects of this research transformed my original views and beliefs, resulted in a greater understanding of the CDEP and helped to minimise personal bias. The problems and key issues identified in this study in Chapter 7 turned out to be different from what I and the other ICE staff originally thought. In addition, the regular progress reports to DEASA on the findings and difficulties experienced provided an opportunity for the subjects of the research to validate the findings, for "validation is achieved, when others, particularly the subjects of the research, recognise its (qualitative research) authenticity" (McCormick & James 1983).

As far as external validity is concerned, it is important to note that the aim of this research is not to produce universally generalisable findings, but to instead ensure a sound description and interpretation of the programme under study. Since very little is known about the

impact of the CDEP, this study should present an understanding of what actually takes place in the implementation of this innovation, the kind of contribution the CDEP is making in the region and the challenges it faces.

3.6 DATA ANALYSIS AND INTERPRETATION

The data analysis and interpretation are described below according to the four stages of the research.

3.6.1 Familiarisation

The familiarisation stage field visits notes were written up daily, as far as possible, to ensure a complete record. The notes were then summarised to develop an organisational and/or country report. Taking the Botswana visit as an example, from the notes gathered during the two week period a summary report was produced covering people observed, the nature of their work in the organisation, the problems they encountered in their work and studies and suggestions on how to address these. Appendix 6 is an example of the summaries produced. After all three familiarisation visits were completed the summary reports were compared and a decision taken on the questions to include on the postal questionnaire.

In addition, during this stage of familiarisation a variety of CDEP documents were studied. These included UNISA-ICE, SACHED-DETU, DEASA and COL documents covering planning, policy, minutes of meetings, collaboration contracts, various reports and CDEP learning materials. These documents provided information on, for example, the providers' intentions, agreements, policy statements, on the one hand, and the implementation details like who are the participants, where are they located, and what are the different components

of the programme, on the other. This data helped in the identification of sites for the initial familiarisation visits. It, for example, indicated the largest and smallest users of the CDEP and confirmed that most CDEP users regularly attend DEASA regional meetings. DEASA meetings were, thus, shown to be the best place to start negotiations for access and observation visits.

The patterns emerging from the documents read during the familiarisation stage were, inter alia, that the CDEP was well regarded by its participants and that its collaborative approach was well appreciated. One of the issues that needed to be followed-up in the next stage was whether this view was widely supported by all categories of CDEP participants. The postal survey used in the next stage included questions on strengths and weaknesses of the CDEP and its relevance to participants' jobs to understand in what way, why and how the CDEP has gained its esteem.

3.6.2 Questionnaires

Given the relatively small survey population, it was relatively easy to analyse the questions manually. The analysis of the responses to close-ended questions involved categorising the information according to organisations, country, jobs, participants' years of experience in current organisation and year of enrolment in the CDEP. Figure 3.5 below is an example of a composite table summarising the profile of the ten organisations' representatives that completed the questionnaires. This showed that the majority of the respondents held senior positions in their organisations and only one had less than one year experience in the current job.

Figure 3.5: Questionnaire returns: Profile of organisations representatives

ORGANISATION	COUNTRY	EST DATE*	JOB TITLE	YEARS IN POS
1. UNISA	South Africa	Blank	National Coordinator	2-3 years
2. LDTC	Lesotho	1974	Director	- 1 year
3. IDE	Swaziland	Blank	Vice-Principal	+ 5 years
4. BOCODOL 5. DNFE	Botswana	Blank	Adult Education Officer 1 (Student Advisor)	+ 5 years = 4 years
6. SACTE	South Africa	Blank	Lecturer	1-2 years
7. EDC	Swaziland	1994	Director	+ 5 years
8. CES	Namibia	1992 - 1987 as Dept of DE	Director	4 years
9. CCE	Botswana	1982	Head, Distance Education Unit	4 years
10. NAMCOL	Namibia	1998	Learner Support Officer	

**Date organisation was established*

The responses to open-ended questions were first read to get a general sense of the contents. Open coding, an open process used in exploring data without making prior assumptions about what will be discovered, was used to develop categories of concepts and themes emerging from the data (http://kerlins.net/bobbi/research/nudist/coding/strategies.html. The themes were coded on each questionnaire, for example improve distance education knowledge was coded IDEK, personal enrichment was PE and advertisement was A. The verbatim responses from all the questionnaires were then captured under each question according to the different themes. For example under Question 6 on the reasons for joining the CDEP, the six themes of the responses were: to improve knowledge of distance education; to improve capacity, performance or skills; personal enrichment; organisational influence; advertisements and relevance to work. During this level of analysis a two column table was developed capturing verbatim responses under the six themes in one column and the source of the response on the other. For example, in the second column the code UNISA 6.1 meant the response was from

a UNISA respondent answering Question 6 and this respondent was differentiated from other UNISA respondents by a number, that is No 1, hence 6.1. Appendix 7 is an example of this kind of first level analysis which according to Miles and Huberman (1994: 56) is also coding:

> Coding is analysis. To review a set of field note, transcribed or synthesized, and to dissect them meaningfully, keeping the relations between the parts intact, is the stuff of analysis. This part of analysis involves how you differentiate and combine the data you have retrieved and the reflections you make about the information.

From this first level analysis it was possible to develop numerical data like how many respondents from each of the countries/organisations, categories of issues etc. Different kinds of summaries were developed, for example, Figure 3.5 on questionnaire returns and Figure 3.6 summarising the number of responses on each of the themes from the three categories of CDEP users.

Figure 3.6: Reasons for joining CDEP

DESCRIPTION	STUDENTS	TUTORS	ORGS
1. To improve knowledge of distance education	18	1	8
2. To improve my capacity, performance, skills	12	-	6
3. Personal enrichment	1	-	-
4. Organisational influence / recommendation	3	-	-
5. Advertisements	2	-	-
6. Relevance to work	4	-	-
7. To evaluate the course / see how it worked for future staff training	-	1	1
8. To help students / support colleagues enrolled on course	-	4	-
TOTAL	**40**	**6**	**15**

The eight themes listed in Figure 3.6 were later reduced when some of the themes were combined through axial coding, namely building connections within categories, that is between categories and sub-categories. Through selective coding, that is the reflection of the structural relationship between categories, the findings were integrated to form the theoretical structure of analysis (http://kerlins.net/bobbi/research/nudist/coding/strategies.html. In Chapter 6, Figure.2 the categories in the above Figure 3.6 were reduced when connections related to participants' roles were identified in their reasons for joining the programme. The relationships between the groups': learners, organisations and tutors, responses became clearer in such a theoretical structure. For example while all three groups' reasons were related to knowledge and skills acquisition, each group interpreted this from their role in the programme: learners wanted to gain or improve their knowledge and skills; organisations wanted to provide staff with these attributes while tutors to help learners gain them. Therefore, Reason No 8 in Figure 3.6 was grouped with gaining and acquiring skills.

These kinds of summaries of data facilitated comparisons and highlighted patterns of emergent issues relating to CDEP relevance, strengths, weaknesses, improvements. They also provided another dimension to the information gleaned from the organisations' instructional systems and helped to identify potential organisations, learners and tutors to form part of the next data gathering process.

3.6.3 Non-participant observation

Data from this stage of the research came in two forms, written field notes and audio recordings.

Generally, analysis of data from qualitative techniques like observation and in-depth interviews is an on-going process and involves many levels of analysis, beginning "from the moment the field worker selects a problem to study and end(ing) with the last word in the report" (Fetterman 1989: 88). The interaction and informal discussions with participants during observation facilitate on-going testing of emerging perceptions and ideas and enable the researcher to develop accurate conceptual frameworks of what is being observed and what needs further clarification. From the field notes daily summaries of observations were developed and patterns of emerging issues were identified at the end of each organisation's period of observation. The familiarisation section has provided details of the kinds of summary reports produced. This process helped to reduce information overload and facilitated inter-organisational comparisons and synthesis of key emergent issues.

Audio-tape recordings, which were used mainly for interactive sessions like the group interview with Lesotho participants which is referred to in Chapter 7, Figure 7.2 were transcribed and analysed at the end of the regional field visits to identify new themes and issues and/or corroborate those already mentioned in other forms of data gathering mechanisms. The issues confirmed at this stage were then taken forward for inclusion in the semi-structured in-depth interviews schedule.

3.6.4 Semi-structured in-depth interviews

Analysis of data from the interviews was similar to that described in the observation section above.

The audio recording of the interviews were transcribed as far as possible after completion of each full round of in-depth interviews and then analysed and categorised according to themes.

For example, in these excerpts from Namibian respondents (Puleng, Meisie and Johanna in Figure 3.7) who had graduate qualifications but had enrolled for the CDEP, the analysis sought, inter alia, to identify consent or dissent on the level of the course and the reasons for either. For these three respondents, the level of the course was not a problem because the content and mode of delivery was new to them and helped them understand the problems faced by distance learners.

Figure 3.7: Namibian learners' interviews, 5 April 2002

Interviewer: So you did the certificate after completing a BA. Didn't you think it was too low?

Puleng: No I did not think of it as being too low because when I heard that it was a certificate for distance education practitioners, I just took it that it will help to give me information which it actually did.

Meisie: I did it after attaining my degree and in my estimation it wasn't really low because throughout my studies we mostly concentrated on formal education and then when I started at my current organisation it was distance, open learning and it really helped me to cope with stress and problems faced by open and distance learners. And as a learner support officer it helped me to support my learners or to support our learners. It is really difficult to study at a distance and I have got an experience of that through studying this programme and I know the problems that our learners have and or are dealing with.

Johanna: I studied the certificate in 1999 and wrote the exams the following year in 2000. And I think this course is not low. It is relevant to what we are doing as a distance education institution. It helped especially in my materials development, that is where I am working and the part that I am interested in most, especially setting up continuous, I mean self-marking activities and writing objectives makes the materials interactive and all that stuff. It helped a lot. And I am happy that I did that course.

Since the issue of level of the course had been raised in the questionnaires and during the familiarisation visits, it was important to corroborate the Namibian learners' view with someone who had postgraduate qualifications and also worked in a higher education institution. Hence one of the people selected for in-depth interviews was from this category of learners. Chapter 7 includes this in-depth interview.

3.6.5 Interpretation of Impact

From the above described analysis of the different kinds of data, that is from familiarisation, questionnaires, non-participant observation and in-depth interviews, key issues and/or "patterns of cause and effect" (Parlett and Hamilton 1975: 83) of the CDEP programme became clearer or were illuminated progressively as the research continued. These issues and patterns, for example the positive feedback about the value of the CDEP to its participants but limited learner enrolment in the programme, were reviewed against the programme's framework of aims and objectives, regional and international ODL policies, theories and practices and then the evaluation of the CDEP's overall impact was carried out using McAnany's (1975) model of evaluating curriculum impact by means of five criteria.

McAnany's (1975) model covers extensively both qualitative and quantitative aspects of impact and has been successfully used to evaluate the impact of South American radio schools. The five categories of this model are effort, performance, adequacy, efficiency and process. Effort is concerned with scope, diffusion of innovations to other places and numbers of people served. Performance is concerned with what has been achieved relative to the aims of the programme. Adequacy examines the relevance of that performance to the identified problem or need. Efficiency compares effort with performance across several alternatives of solving the identified problem or need. Lastly, process seeks to answer the question why an innovation has succeeded or failed by isolating factors in the learning and teaching process that contributed to this. This model of evaluating impact ensured critical interpretation of both the CDEP instructional system and its learning milieu.

3.7 CONCLUSION

The research design described in this chapter is multi-faceted involving both quantitative and qualitative data. It includes different types of triangulation, that is, a method of confirming data by showing that different independent measures confirm the findings (Miles and Huberman 1994: 266). The types of triangulation used in this study are: data source triangulation (learners, organisations and tutors), method triangulation (non-participant observation, questionnaires and interviews) and data type (quantitative and qualitative) (Miles and Huberman 1994: 227).

The conceptual framework of the research design as presented at the beginning of this chapter Figure 3.1 might give the impression that this research strategy is linear and top-down. This earlier framework needs to be considered in conjunction with Figure 3.8 which shows that the analysis and interpretation of impact is rather complex and dynamic allowing for continual mulling of ideas from the different sources and perspectives and teasing out the implications for the programme's impact from different dimensions as provided in McAnany's model.

In Figure 3.8 below the data sources, topics, research questions and interpretation tool are represented. The interpretation tool used, McAnany's five criteria, is placed at the centre because interpretation of impact is derived from the three inter-related parts of the research questions starting with ODL conceptions and practices, then moving on to CDEP participants' contributions, issues and problems raised during observations and interviews and ending with an interpretation of the CDEP's effectiveness and/or impact.

Figure 3.8: Data sources and key issues

