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DIALOGUE OR DISCIPLINE: DISTANCE EDUCATION SUPPORT IN THE DEPARTMENT OF DEFENCE

by

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DECLARATION

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I declare that this thesis:

"Dialogue or Discipline: Distance Education Support in the Department of Defence

is my own work, being submitted as a requirement for the degree **PHILOSOPHIAE DOCTOR (PhD)** by the University of Pretoria and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references and it has not previously been submitted for a degree or any examination at this or any other institution

_____ _____

SIGNATURE DATE

Llewellyn Mxolisi Xabanisa

DEDICATION

This work is dedicated to my late father Ebenezer Sipho Barnabas, a school teacher and choir conductor who had a good ear for music especially when sung by his pupils. To my entire family and my in-laws for their support and having confidence in me and being proud of what I was doing, especially my mother, Florence, who sacrificed a lot so that I could keep up with my studies during the difficult times. A special dedication to my wife, Iris, my sons, Simphiwe and Lethabo, and daughter, Nomathamsanqa (Malebo) for believing in me; without their loyalty, love, support, sacrifice and understanding, this work would not have been possible.

Ndiyabulela Bo Radebe, Bo Bhungane, Bo Mafuz'afulele, Bo Ndleb'entle zombini, Bo Zulu; nditsho nakuni BoDlomo, Bo Shubela, Bo Vel'ababhensele – Ndithi Makube-Cosi kube-Hele

(simply means I am thankful to my ancestors and singing their praises)

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ABSTRACT

The first key to wisdom is this – constant and frequent questioning, for by doubting, we are led to question and by questioning we arrive at the truth (Pierre Peter Aberlard).

The aim of this study was to identify what were the requirements placed on the design of distance education programmes as regards discipline or dialogue and how did these factors impact on student-support in the South African National Defence Force (SANDF).

Education in general is used to classical behavioural objective that outlines precisely for the student what has to be done and is one way of structuring the learning materials. The South African National Defence Force (SANDF), by its very nature, is very familiar with this formal structure and style of doing things. It prescribes the way teaching has to happen and how the outcomes have to be achieved and at times in a very formal way.

Opposed to the above is **dialogue** that calls for a move away from the prescriptiveness of doing something. Doing and thinking now becomes more open through dialogue. Education stakeholders now debate the value of certain content, since content is no more fixed, the admission of students into the programme is not fixed any more and the way examinations are set is also not fixed or prescriptive. There is now a move away from the **disciplinary** way of thinking, that is, thinking in terms of fixed boundaries or discipline any longer – dialogue has opened up options and opportunities.

This research is based on the belief that distance education problems in the Department of Defence (DoD) are as result of outdated and inadequate instructional or programme design methods or approaches, and thus lack student-support.

The four sub-research questions that emanate from the main research question as posed in this research are summarized as follows: (1) What is the distance learning teaching and learning character of the South African National Defence Force (SANDF)? (2) What is the role dialogue in the design of teaching and learning? (3) How are 'outcomes' in transactional distance or dialogue achieved? (4) What is the role of dialogue in student empowerment or student support?

The design of this research was based on qualitative approach. The feasibility of the research was assured by focusing on distance learning institutions and practitioners. Literature study and document analysis was utilized as data-collection method. Face-to-face interviews with focused groups and individual interviews utilizing unstructured, open-ended questions on interview schedules were also conducted. In addition, anonymous student reports collected by programme managers at the end of a programme replaced the unavailability of student interviews were utilised.

The findings of the study were that the character of structural design of distance learning programmes in the South African National Defence Force (SANDF) resembles that of the disciplinary approach, and is thus prescriptive. Structure, in terms of the teaching and learning strategies and the substance of the content is largely the mode of practice in the SANDF's distance education system. Communication finds its way into the distance learning system of the Department of Defence as authoritative power source.

The main function of dialogue in the system is to vest the interest of this organization as programme directors and instructors are not fully emancipated. Students and instructors find it difficult to engage constructively academically. Learner-to-learner interaction and freedom of academic discourse is hampered as the result of authoritarian and prescriptive doctrine of a structured curriculum. It is then concluded that student-support in the South African National Defence Force (SANDF) distance education settings does not address requirements of dialogue.

KEY WORDS

CURRICULUM DEVELOPMENT

DIALECTIC

DIALOGUE

DISCIPLINE

DISTANCE EDUCATION (DE)

DISTANCE LEARNING (DL)

DROP-OUT

EDUCATION, TRAINING AND DEVELOPMENT (ETD)

ETD PROCESS

INSTRUCTIONAL DESIGN (ID)

PROGRAMME DESIGN

STUDENT-SUPPORT

TRANSACTIONAL DIALOGUE

TRANSACTIONAL DISTANCE

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LIST OF ABBREVIATIONS

AoS:	Arm of Service
AOT:	Administrative, Operational and Technical
Brig Gen:	Brigadier General
CAL:	computer assisted learning
CMC:	computer-mediated communication
CML:	computer managed learning
CoD:	Council on Defence
Col:	Colonel
COLET:	College of Educational Technology
CSANDF:	Chief of the South African National Defence Force
CSW:	Conventions of Service Writing
DDE:	Directorate of Distance Education
DE:	Distance Education
Def Sec:	Defence Secretariat (Secretary of Defence)
DEM:	Distance Education Module
DIDTETA:	Defence and Trade and Industry Education Training Authority
DOD:	Department of Defence
DSC:	Defence Staff Council
DMOD:	Deputy Minister of Defence
DMOD:	Deputy Minister of Defence
Dir:	Director
DL:	Distance Learning
DTR:	Defence Training Review
E-learning:	Electronic learning
ETD:	Education, Training and Development
ENSP:	Executive National Security Programme
ESOL:	English as Second Language
F SGT:	Flight Sergeant
ICT:	information communication technology

ID:	Instructional Design
IM:	Instant Messaging
IMM:	interactive multimedia
IS:	Individual Study
IT:	information technology
JSCSP:	Joint Senior Command and Staff Programme
LAN:	local area networks
LMS:	learning management software
LMS:	Learning Management System
Lt Col:	Lieutenant Colonel
Maj:	Major
MDU:	Maharshi Dayanand University
MK:	Military Knowledge
MOD:	Minister of Defence (Ministry of Defence)
NADEOSA:	National Association of Distance Education of South Africa
[n.d.]:	This refers to a reference where publication date is not provided by the author or publisher
NQF:	National Qualifications Framework
OC:	Officer Commanding
OBE:	outcomes-based education
OEF:	Open Education Faculty
Par:	Paragraph (refers to a particular paragraph in the text)
PCP:	Personal Contact Programme
PSO:	Peace Support Operations
PSS:	Personnel Service School
RPL:	Recognition of Prior Learning
RSA:	Republic of South Africa
SA:	South Africa
SAA:	South African Army
SAAF:	South African Air Force
SAIDE:	South African Institute of Distance Education
SAMHS:	South African Military Health Services
SAN:	South African Navy
SANDC:	South African National Defence College
SANDF:	South African National Defence Force

SANWC:	South African National War College
SAPS:	South African Police Service
SAQA:	South African Qualifications Authority
SETAs:	Sector Education Training Authorities
SIM:	Self-Instructional Module
SO:	Staff Officer
[s.p.]:	This refers to a reference where page numbers were not provided by the author or publisher
SWOT Analysis:	strength, weakness, opportunity and threat analysis
Technikon S.A:	Technikon South Africa
Trg Comnd Fmn:	Training Command Formation
UNISA:	University of South Africa
URLs:	universal remote links
WAN:	wide area networks
WO:	Warrant Officer
WWW:	World Wide Web

ABBREVIATION MEANING ON CODE ALLOCATION TO INTERVIEWS RESPONSES

IP:	Individual or personal interviews
IP1:	School for Military Health Training individual or personal interview
IP2:	Army College individual or personal interview
IP3:	Air Force College individual or personal interview
RFG:	Respondent focus group
RFG1:	Army College respondent focus group
RFG2:	Air Force College respondent focus group
RFG3:	School for Military Training respondent focus group
ACSR	Army College student reports
AFCSR	Air Force College student reports
SMHTSR	School for Military Health Training student reports

DIALOGUE OR DISCIPLINE: DISTANCE EDUCATION SUPPORT IN THE DEPARTMENT OF DEFENCE (DOD)

CHAPTER 1

INTRODUCTION AND ORIENTATION

1.1 INTRODUCTION

This chapter aims to highlight some of the typical problems often encountered at institutions conducting a distance learning mode of instruction. It discusses the background that led to conducting the study, the rationale for undertaking the research into the importance of student support in a distance learning settings and, most importantly, it highlights the problem statement, the main research question and sub-research questions. The aims and objectives of the study are also discussed in this chapter. This chapter, also briefly discusses the research methodologies and strategies including the population, sample, data-collection techniques, and data-collection methods. The chapter ends by discussing the chapter outline of the entire study and some important terms used in the study.

1.2 TYPICAL PROBLEMS FOUND IN DISTANCE LEARNING

It is widely known and accepted that distance learning is a teaching and learning methodology in which students receive their learning and instruction away from the institution and instructors that they have enrolled. Thus, the term distance learning in this study also referrers to other forms of distance learning as discussed in the next chapter, in the section, 'the concept of distance learning in the Department of Defence'. Distance learning has been and still is referred to as distance education, distributed learning, online learning, and e-learning and/or web-based instruction (Duangploy, Williams, & Gray, 2007:13).

It is fair to state that distance learning problems vary from institution to institution among those that conduct their instruction through this mode. A number of authors have pointed out a number of problems associated with distance education effectiveness though many others have recognised that this kind of teaching and learning has a supportive dimension. For example, Rovai (2003:2) refers to Carr (2000) who noted that persistence in distance education programmes is often 10-20 percent lower than in traditional content programs. It is not necessarily the intention here to give detailed reasons behind these problems. But the fact is that these problems vary and, sometimes, interrelated. A study conducted by Qureshi, Morton and Antosz (2002:[s.p.]) found that distance education students were less motivated than on-campus students. There is also the problem of drop-out; countless reasons for drop-out in the distance education mode of instruction have been documented in many studies.

Astin (1975), is cited by Woodley (2004:49) that the most frequent reasons for dropping out were boredom with courses, financial difficulties, dissatisfaction with requirements or regulations and change in career goals. Another research conducted by Yorke (1999) as cited in Woodley (2004:49) showed that many students left because they felt they had picked the wrong course from the myriad on offer. According to Valentine (2002:[s.p.]):

> "Despite the promises and obvious advantages to distance learning, there were problems that needed to be resolved. These problems included the quality of instruction, hidden costs, misuse of technology, and the attitudes of instructors, students, and administrators".

A study by Schifter (2002:13) found that while the quality of the faculty was the key to a successful distance education programme, less interaction with the students led to less interest on the part of faculty to participate. It could be said that students were also not immune from having less interest to participate.

According to Comstock (2000:[s.p.]), the combination of structure, learner control, and transactional distance and their role in which the education is delivered were responsible for effectiveness of distance education. As a theory associated with distance education, transactional distance is not measuring the physical distance between the instructor and student, but measuring the amount of interaction between them. For example, Lemone (2005:[s.p.]) refers to Moore (1993) that teacher-learner relationships that exist when learners and instructors are separated by space and/or time consists of three parameters, interaction, course structure and learner autonomy (Lemone, 2005:[s.p.]). Dialogue (autonomy) plays such a huge role in distance education as does structure (Comstock, 2000:[s.p.]). Although according to Comstock, (*Ibid*) another problem with distance education courses is the instructors' inability to judge students' autonomy and adjust the transactional distance accordingly. Just as students fail out of distance courses simply because they cannot handle the amount of autonomy that comes with it. (*Ibid*).

It should be pointed out that authors interpret the term dialogue differently, but all point to the same direction. Moore (1993) state that dialogue is developed by teachers and learners in the course of the interactions that occur when one gives instruction and the others respond. Dialogue is one of the important tenets in distance learning. The concepts of dialogue and interaction are very similar, and …are sometimes used synonymously (Moore, 1993:23-24). Dialogue can be described as the learner-teacher interaction in a distance course (Vrasidas & McIsaac, 1999:24). Transactional distance is defined as a function of dialogue and structure (Wallace, 2003:245). Watson, Correia, Lee and Schwen (2004:54) referring to Boone, (2001), Roth, (1994), and Stewart, ([n.d.]) defines dialogue as the interchange of ideas that

seeks to establish greater learning or understanding in the context of mutual harmony. In Watson, *et al* (2004:54), Banathy (2003:11) defined it as a disciplined, consensus-building process of collective communication based on shared values and beliefs.

As a two-way communication, dialogue in this study is viewed and used as an environment that allows free and unhindered interaction between students and instructors and among students. This interaction is voluntary; thus, valued and respected by all involved. As such it is not forced nor prescribed on the participants. Everyone is free to participate without being forced or coerced to do so. It can be also emphasised here that dialogue fits very well in distance learning settings; as learners and instructors need this two-way communication. According to Roblyer and Wiencke (2003:77), the topic of interaction figures prominently in discussions of effective distance learning practices. Fulford and Zhang (1993:8) cited by Roblyer and Wiencke (2003:77) observed that:

> "Interaction has long been considered the key to success in traditional classrooms," it is not surprising that it has also come to be considered a *sine qua non* for successful distance courses".

According to Research yields consistent indication that increased interaction in distance courses is associated with higher achievement and student satisfaction (Zhang & Fulford, 1994; Zirkin & Sumler, 1995) cited by Roblyer and Wiencke, (2003:78).

Moore's idea was that a smaller transactional distance would be a sign of greater involvement by the student (Wallace, 2003:245). The more the learner interacts with his or her instructor or authorities at the institution the learner has enrolled for his or her studies, the lesser he or she will feel isolated and the distance between the said learner and instructor or the institution will not be felt, especially by the learner. Transactional distance is measured on a continuum of structure and dialogue. The more structure, the less dialogue and vice versa. (Dron, Seidel, & Litten, 2004:163) More dialogue between the instructor and students indicated a smaller transactional distance, while more structure provided by the instructor or the institution result in a larger transactional distance (Wallace, 2003:245). The extent of dialogue and the flexibility of structure vary from programme to programme (Moore, 1993:27). More or less transactional distance depends on this variation *(Ibid)*. For instance, as some military-related programmes would require more structure, it does not necessary mean that there should be an absence of dialogue (or interaction). According to Moyer (2004:59-60), a ten-month resident course at the United States Army Command and General Staff College (CGSC) that transformed into a distance education format for the Internet through a limited access learning management system (LMS), little to no interaction with instructors or other students was

necessary. This course was designed to make the learner completely independent, other than writing and briefing *(Power Point)* submissions and the pre- and post-tests that were submitted via electronic mail or through the LMS. Rather than include a discussion board or encourage frequent e-mails between instructors and students … checks are presented to the individual students, without outside assistance (Moyer, 2004:60).

Referring to Moore (1989:2-4), Barbour and Reeves (2006:[s.p.]) contend that there are three types of interaction in distance education: interaction between the learner and the content or subject of study…interaction between the learner and the expert who designed the subject material, or some expert acting as instructor... [and interaction] between one learner and other learners, alone or in group settings, with or without the real-time presence of an instructor. In order for the learner to understand or master his or her subject, he or she has to constantly engage in his or her reading material and find answers to questions he or she might have; he or she has to consult with the instructor for unanswered questions; and continue to engage his or her peers for further unanswered questions. Dron (2006[s.p.]), refers to Anderson (2003), who describes six modes of interaction in online learning as teacher-student, teacher-content, teacher-teacher, student-student, student-content and content-content. Thus, interaction takes many forms. In order for instructors to assist learners on their questions, they must first understand the material themselves; the instructors must be able to assist each other; the contents must be able to supplement each other. Dron (2006:[s.p.]), goes on to say that:

> "In social software, the group is a first class object that has an existence in its own right, mediated through the environment just as interactions between individuals are mediated".

Therefore, a further four interactions are significant: student-group, teacher-group, content-group and group-group. (Dron, 2006:[s.p.]). According to De Ture (2004:24), a fourth category of interaction, learner-interface, was added by Hillman, Willis, and Gunawardena (1994) because, unlike traditional classroom interactions, distance education requires interfacing with technologies to make interactions in the other three categories mentioned by Moore (1989) and Barbour and Reeves (2006). Learning involves two types of interaction: interaction with content and interaction with other people (O'Neil, 2006:[s.p.]). It is postulated then, that dialogue (or interaction) has to be constant in distance learning settings. It cannot be spontaneous or once-off activity. It has to be by choice or activated by a need. Referring to Garrison (1990), Hackman and Walker (1990), Ritchie and Newby (1989), De Ture (2004:24) emphasises that the importance of interaction in education settings has been widely investigated, and it has been shown that students who perceive higher levels of interaction have more positive attitudes and Navarro and Shoemaker, (2000) higher

achievement. Distance learning theory and research holds that interaction is an essential characteristic of successful distance learning courses (Roblyer & Wiencke, 2004:77). Duangploy, *et al* (2007:16), refers to Moore (2002) that the dialogue between learner-instructor inter-action is a crucial component that facilitates the other two (structure and learner autonomy) and creates an effective learning environment.

As discussed earlier, dialogue (interaction) should be free and by choice from, especially both sides, the learner and the instructor (or the institution) and be accepted as such. But, according to O'Neil (2006:[s.p.]), interaction is… a very important aspect of the role of the instructor in distance education …". The interaction should result in or encourage the learner to also engage in interaction with the instructor. This study holds that failure by the instructor to interact with the learner is the result of an overemphasis of discipline or body of knowledge (or subject content). Discipline in this study is compared to structure in that it is imposed by the instructor or the institution. Furthermore, for the purpose of this study, discipline also has a second meaning. It refers to the authoritarian positioning (or authority) of the teacher or instructor in the teaching and learning environment. It also addresses the direct line of authority and content to which dialogue could be compromised when freedom of the learner is restricted due to protocol or practice.

It describes what the learner must achieve. It sets the learning parameter for the learner – what, when, why, how, and who must he or she interact with. Dialogue is purposeful, constructive and valued by each party. Each party in a dialogue is a respectful and active listener; each is a contributor, and builds on the contribution of the other party or parties. (Moore, 1993:24). Trentin (2000:17), contends that quality is not synonymous with excellence, but rather indicates the management of a continuous process aimed at bridging the gap between the expected effect (what out to be learned) and the actual effect (what has been learned). Achieving such a result demands frequent interaction between all of the components in the process. Interaction is imperative if the quality of the process is to be raised: interaction with materials, between students and their instructors, and among all the participants (*Ibid*).

A lack of dialogue poses a problem both for practitioners as well as researchers in the field of educational technology. Watson, *et al*, (2004:54) refers to Boone, (2001), Roth, (1994), and Stewart ([n.d.]), who noted that dialogue, is the interchange of ideas that seeks to establish greater learning or understanding in the context of mutual harmony. Dialogue is a disciplined, consensus-building process of collective communication based on shared values

and beliefs (Banathy, 2003:11). Therefore, dialogue is a calling that everyone involved in distance teaching and learning endeavour has to honour and respect. Failure to do so will mean that discipline is embraced more than dialogue and a set up for failure. The lack of dialogue and in favour of discipline could be directly or indirectly linked to some of the problems in distance education settings including those mentioned earlier in this section.

1.3 BACKGROUND TO THE STUDY

In its First Report, the Department of Defence (DOD) Education, Training and Development (ETD) Project Team[1] concluded that the training presented had been comprehensive and had mainly satisfied the needs of some clients but neglected others (DOD Education , Training and Development Project Team Report, 1997a:9) (referred to as DOD ETD Project Team Report a or b). Thus, the transformation of the DOD has necessitated an overhaul of the training function, which has been expanded to include education and development, thus catering for the total development of the individuals, groups and organizations within the Department of Defence. Distance learning also form part of this transformation. The inclusion of civilian members of the Department in the Education, Training and Development Process was also a major departure from past practices.

The Project Team determined that some of the South African National Defence Force (SANDF) students who undertake Education, Training and Development opportunities through distance learning in the Department of Defence often do not complete their studies (DOD ETD Project Team, 1997a). The Department of Defence students were usually not ready to pursue their studies in a distance learning mode of delivery. These students were not submitting their assignments and were not committed to writing their final examinations. Hence, they drop out of most distance learning programmes offered by the Department of Defence. This resulted in the Department of Defence's funds, time and efforts being wasted in the process. The Project Team recommended that the root causes of the problems negatively affecting the 'student body'[2] be investigated and best solutions be sought and implemented (DOD ETD Project Team Report, 1997a:10-18). A synopsis of these problems and recommendations by the ETD Project Team is included in Appendix A.

[1] The DOD ETD Project Team hereafter the Project Team was one of the DOD Redesign Teams instructed by the Defence Staff Council (DSC) in 1997 to field a report to conclude Phase 2 of the process to address the transformation of ETD in the DOD.

[2] The Student Body are DOD ETD candidates who make use of ETD opportunities, accept and take responsibility for their learning (DOD ETD Project Team Report, 1997a: 27).

1.4 PROBLEM STATEMENT

The Department of Defence distance students' commitment, motivation and incentives and ability to complete the programmes remained problematic. The motivation to follow and complete their programmes is believed to be lacking in these students. There is a lack of sufficient scope for adaptation to the technologies implemented in delivering the distance learning since the different training units had varying technological infrastructures. Moreover, the instructors were not adequately trained for distance learning; their qualifications were inadequate and there is a shortage of these instructors. In addition, there is a lack of understanding of the entire scope of distance education in the Department of Defence.

In 1949 Ralph Tyler (1949) published the 'Basic Principles of Curriculum and Instruction' that led curriculum design and development globally for many years. It became known as the 'mechanistic model' and was further characterised because of the fact that it was a much closed system based on the method that accompanied the model (Doll, 1993:115). Due to its popularity and because of the simplicity of the curriculum development phases the model represent, the underpinning premises of the model also gave it the name of the 'evergreen' or 'perennial' curriculum (Smith & Lovat, 2003). The four premises or basic principles the model propagate refer to (a) the purposes or outcomes to be achieved, (b) the accompanying learning experiences best fit to develop the outcomes, (c) the instructional and teaching activities to achieve the outcomes, and (d) best evaluation practices through which the achievement of the outcomes can be assessed (Tyler, 1949:1; Ornstein & Hunkins, 2009:214).

Although Tyler (1949:1) originally suggested that students should be 'encouraged to examine other rationales and to develop his (sic) own conception of the elements and relationships involved in an effective curriculum' this technical-scientific model (Carl, 2009:43; Ornstein & Hunkins, 2009:214) became ideally suited for curriculum developers who saw it fit to use the curriculum to disseminate objectives and outcomes within the purpose, structure and function of the organisation. It became known as a 'curriculum of power' or even the 'curriculum of authority' meaning that institutions, organisations and providers could develop a curriculum that will support the objectives and philosophy of the organisation by means of acceptable and justifiable academic curriculum development principles. Kizlik (2010:s.p) is very precise by referring to the power of curriculum developers as follows:

> "Basically, I believe that curriculum is about ends, not means. When those two concepts are blurred, trouble begins. Put simply, the most useful ideas about curriculum begin with context that curriculum is

> about those with power (the state, societal institutions, parents, etc.) want those with limited or no power (students) to learn".

Many academics questioned the functionality of the Tyler rationale in the past, and then especially the assumption that objectives for learning can be retrieved from learners themselves or from the tasks and functions of the organisation (Chan, 1977:23-24). Interestingly, it was also Spady (1994:19) who suggested that curriculum developers should 'design down' from the culminating outcomes to establish the enabling outcomes or learning outcomes to be achieved during the facilitation of learning. However, although Slattery (2006:8) as postmodernist values the contribution of the Tyler model to education in general, he argues that postmodern philosophies are emerging that 'often replace the traditional model of curriculum development itself'. It appears as if it has a lot to do in the way learners construct their own meaning. In support of this notion, Smith and Lovat (2003:108) refer to Derrida and Foucault when they write that they (Derrida and Foucault) 'have shown that each person constructs their own meaning, and each relationship comprises a unique world of interconnected relevance'.

Discipline, and then specifically subject discipline or subject matter forms an important component of a course rationale (Posner & Rudnitsky, 2006:84-85). According to the authors the rationale may stress the importance of a particular topic or discipline to the overall programme. It also addresses the value of the subject matter to the target population (Posner & Rudnitsky, 2006:85). For example, a subject-centered curriculum will most likely focus on the structure of the discipline for content selection (Wulf & Schave, 1984:23). Smith and Lovat (2003:43-44) remind us that curriculum theory as a field of study 'draws heavily on the contributions of the foundational disciplines, on the one hand, and critically appraises their contributions, on the other.' Bernstein, in Hoadley and Jansen (2009:290-291) distinguished between two types of curriculum, namely curriculum of the collection type (curricula disciplinary related) and curriculum of the integrated type. This paradox reiterates one of the problems that emerge in this specific study. It acknowledges discipline as subject matter in the context of the tasks and functions of the Department of Defence, on the one hand, but on the other hand questions the 'authoritative power' and 'mandate' of pre-selected subject matter as rationale in the context of the designed and developed programmes. Furthermore, it also brings to the fore students' engagement with the subject matter during teaching and learning and questions the association between student learning, curriculum as discipline and student support. The purpose of the study is not to reject authority outright within the context of teaching and learning but wishes to explore to what extent teaching and learning, and then with specific reference to student support, manifest itself in a very authoritarian teaching and

learning environment as found within the structures of distance learning modes of operation in the Department of Defence.

Discipline therefore also has another meaning. It relates to authority with which it is often intertwined and seen as precondition to an authoritarian order of society. Marcuse (1973:135) referred to Marx and had the following to say about authority:

> "The dialectical and two-sided character of the authority relationship is also the determining factor in the establishment of a positive concept of authority … there is a kind of authority which is inseparably linked with all 'organisation', a kind of subordination, based on functional-rational assumptions, to genuine management and performance-labour discipline. Such functional authority is necessary in every social organisation as a condition of production…"

Teaching, learning and student support form the core of the National Association of Distance Education Organisations of South Africa (NADEOSA) Quality Criteria for Distance Education in South Africa (Welch & Reed, 2005:18-42). The criteria cover various variables ranging from academic support, counselling support and administrative support to the establishment of learning centres and the monitoring of quality (quality assurance) (Welch & Reed, 2005:32-33). Another problem that emerges from the literature study as well as from the researcher's own experience with the distance education mode of the Department of Defence is the question whether learner support in the DOD meets and matches the criteria posed by the NADEOSA criteria. The following main research question make-up the problem statement is formulated in the form of a problem question, as suggested by Bak (2004:20-21):

> What are the requirements placed on the design of distance education programmes as regards discipline and dialogue and how do these factors impact on student support in the Department of Defence (DOD) and the South African National Defence Force (SANDF)?

1.5 MAIN RESEARCH QUESTION

What are the requirements placed on the design of distance education programmes as regards discipline and dialogue and how do these factors impact on student support in the Department of Defence (DOD) and the South African National Defence Force (SANDF)?

1.6 SUB-RESEARCH QUESTIONS

1. How does the subject discipline, measured in terms of programme substance and syntax, predetermine the achievement of programme outcomes in a distance learning

environment, and how does subject discipline prescribe to structure in the design of distance education programmes?

1.1 What is the unique character of each of the four Arms of Service of the SANDF and what requirements do they place on the design of distance education learning programmes as well as the achievement of the outcomes in such learning environment?

2. How does subject discipline, measured in terms of substance and syntax allow for transactional dialogue in a distance education environment, and how do instructional designers negotiate dialogue in the design of learning material?

2.1 How does dialogue manifest itself as mode of communication between facilitator and student in a distance education environment and what constraints does discipline place on transactional dialogue?

3. How does dialogue between instructors and students facilitated across transactional distance and what is the association between the transactional dialogue and the achievement of learning outcomes in a distance education learning environment?

3.1 How were the achievement of programme outcomes, as well as drop-out and failure rates were linked to subject discipline, learning interventions and transactional dialogue?

4. What is the association between instructor and learner support in a distance education environment and which variables impacted on this, and how do these variables impact on the achievement of learning outcomes in a distance education environment?

4.1 What is the role of dialogue in student and facilitator support and what is its impact on the design of distance education programmes and achievement of learning outcomes in a distance education environment?

1.7 AIM

The aim of the study was to determine what were the requirements placed on the design of DE programmes as regards discipline and dialogue and how do these factors impact on student support in the SANDF?

1.8 OBJECTIVES[3]

1.8.1. The following are the objectives of the study:

[3] These objectives and accompanying reasons and methods to attain them are presented in tabular form in Table 1.8.2

1.8.1.1 To determine the character of teaching and learning in the DOD institutions of distance learning in terms of such issues as programme design requirements and achievement of outcomes.

1.8.1.2 To determine the nature of transactional dialogue as applied in the DOD distance learning environment. To determine the role of dialogue in the design of distance learning and teaching and the distance learning material.

1.8.1.3 To determine the relationship between the achievement of learning outcomes and dialogue across transactional dialogue, and to determine the extent of drop-out and failure.

1.8.1.4 To determine the role of dialogue as a student support mechanism in the DOD distance education environment. To determine other students' support mechanisms in the DOD distance learning environment.

1.8.2 Presentation of problem statement, aim, research questions, objectives, reasons, and research methods

Main research question, aim, sub-research questions, objectives, reasons for attaining the objectives, and methods of attaining the objectives				
Main research question What are the requirements placed on the design of distance education programmes as regards discipline and dialogue and how do these factors impact on student support in the Department of Defence (DOD) and the South African National Defence Force (SANDF)?				
Aim The aim is to determine what were the requirements placed on the design of distance education (DE) programmes as regards discipline and dialogue and how did these factors impact on student support in the SANDF?				
S/N	**QUESTION**	**OBJECTIVE**	**REASON**	**METHOD**
a.	What is the unique character of each of the four Arms of Service (AoSs) of the SANDF and what requirements do they place on the design of DE learning programmes as well as the achievement of the outcomes in such learning environment?	To determine the character of teaching and learning in the DOD institutions of distance learning in terms of issues such as programme design requirements, achievement of outcomes, etc.	Because each AoSs in the SANDF is different and unique in their teaching and learning practices.	i. Interviews ii. Documents, Reports & Text analysis iii. Secondary analysis of already analysed data.
b.	How does dialogue manifest itself as mode of communication between facilitator and student in a DE environment and what constraints does discipline place on transactional dialogue?	To determine the nature of dialogue as a mode of communication between among the role players in the DOD distance learning environment. It is also to determine and understand the role of dialogue in the design of learning material and distance learning teaching and learning in general.	Because dialogue, the interaction between students and instructors is vital in distance learning and important in transactional distance.	i. Interviews. ii Documents, Reports & Text analysis iii. Secondary analysis of already analysed data.
c.	How does the achievement of programme outcomes, as well as dropout and failure rates linked to subject discipline, learning interventions and transactional dialogue?	To determine the relationship between the achievement of learning outcomes and dialogue across transactional dialogue. It is also to determine the extent of drop out and failure.	Because lack of dialogue can impact negatively on transactional dialogue and can result in dropout and failure.	i. Interviews. ii Documents, Reports & Text analysis. iii. Secondary analysis of already analysed data.
d.	What is the role of dialogue in student and facilitator support and what is its impact on the design of distance education (DE) programmes and achievement of learning outcomes in a DE environment?	To determine the role of dialogue as a student support mechanism in the DOD distance education environment. It is also to determine other student support endeavors in the DOD distance learning environment.	Because ensuring dialogue in distance learning programmes also contributes to student support and ensures the achievement of learning outcomes.	i. Interviews. ii Documents, Reports & Text analysis iii. Secondary analysis of already analysed data.

Table 1.1: Research problem, aim, main research question, sub-question, objectives, reasons, and methods to achieve them

1.9 RATIONALE FOR UNDERTAKING THE STUDY

Distance learning is a developing delivery mode in the Department of Defence and, although according to Viljoen (1999:10), it had been practiced for more than a decade. A research project undertaken by a South African National Defence Force College of Educational Technology (SANDF COLET) [known as COLET[4]] researcher, in 2003 to determine the causes of non-completion of College of Educational Technology learning programmes,

[4] SANDF COLET provided facilitation, instructional and training skills to almost all DOD instructors and offered Occupational-Directed qualifications through distance learning.

revealed that workload and lack of support from supervisors were some of the reasons (Moatlhodi, 2003:[s.p.]). A synopsis of this report is included in Appendix B. In addition, a survey by the researcher in 2003 revealed that, amongst other reasons, Department of Defence students were not familiar with the distance learning mode of delivery. This survey was done with College of Educational Technology's ETD facilitators. The synopsis of this survey is included in Appendix C.

Thus, through ongoing research at the College of Educational Technology (COLET), it became known that there is a learning need amongst distance students coming from a conventional environment, to study through this mode. It is also apparent that student support, being the backbone of distance learning delivery, is also lacking. The common understanding in the distance learning environment is that, because students are isolated in time and space, it is extremely important to give them the support they need to achieve their educational goals. The dominant view is that student support services and systems include a wide range of activities, all of which need to be planned and budgeted for.

Siaciwena (1996), Nonyongo and Ngengebule (1998), Mills and Tait (1996), Lockwood (1995), Cheng and Lam (1993), and Sewart (1993), cited by Rumajogee, (2002:81-82) concluded that these activities could be divided into three main categories by the student needs they address, and these were: (a) teaching and learning needs, (b) access and information needs, and (c) social and personal needs. Thus, it has been determined that distance learning programmes must be developed for the Department of Defence adult students through which the essential distance learning skills can be learned and developed. These programmes should be vehicles through which student support services and systems should be developed.

As noted by Viljoen (1999:7), that distance learning in the South African National Defence Force will probably always be a component of any course, since most courses demanded that the students gather on a central place for varying periods for certain practical aspects of their training. The form of distance learning would therefore consist of distance learning phases alternated by a residential phase, contact phase, and coupled to a practical phase. The success of distance learning in the South African National Defence Force would, as for any other training, depend on ensuring the provision of student support through understanding and proper instructional design and development work.

Therefore, this research undertaking should be understood in the context of seeking to understand these issues. It is part of the ongoing research to determine the reasons and causes of distance learning ineffectiveness in the South African National Defence Force that result in drop out and non-completion of learning programmes by the students.

1.10 CONCEPTUAL FRAMEWORK OF THE STUDY

The conceptual framework of this study is based on the view that problems in the Department of Defence distance learning could be the result of outdated instructional or programme design methods, approaches or inadequacy thereof and thus lack of or inappropriate student support. Therefore, an appropriate instructional design method based on discipline or dialogue approach, is vital. Scientific advancement in cognitive science and instructional technology suggest significant changes in methods of curricular and instructional design. These advancements extend the predominantly applied behavioral design and management (Tennyson, 1990:9). According to Jonassen (1990:32), although behaviorism has been largely replaced by cognitive psychology in descriptions of how learning occurs, much of instructional design practice remains behaviorist. Presently, schools under-emphasize the skill set that can be best described as the *tools of learning* in favor of a corpus of prescribed content (Keller & Reigeluth, 2004:18). Conventional curriculum planning is a loose process and responsible for students failing to reach acceptable standards of achievement (Kemp, 2003:57).

The classical behavioural objectives in education outlines precisely for the student what has to be done and is one way of structuring the learning materials. Most traditional…instruction and curricula are based on the transmission, or absorption, view of teaching and learning. In this view, students passively absorb … structures invented by others and recorded in texts or …by authoritative … (Clements & Battista, 1990:34). Kemp (2003:57) cited Rose (2002) that she quoted Nunan (1983), as to why the instructional design process has had little effect on either the public schools or higher education said that the:

> "Intent was to exert control over the activities and participants in the classroom, and they justify this by appealing to theories and techniques which are 'superior' to those possessed by teachers".

The Department of Defence or the South African National Defence Force is very familiar with this formal structure and style of doing things. It prescribes the way teaching had to happen and at times in a very formal way. It set specific targets, pass rates, entry requirements and types of examinations they wanted. It is very prescriptive in how the teaching and learning has to take place and how the outcomes have to be achieved.

Opposed to the above is 'dialogue' or also the 'dialectic' argument that called for a move away from the prescriptiveness of doing something. Doing and thinking becomes more open through 'dialogue'. Stakeholders debate the value of certain content, since content is no longer agreed upon, the admission of students into the programme is not appropriate and the way examinations are set, is also not settled or prescriptive any more. We had moved away from the 'disciplinary' way of thinking, we don't think in terms of fixed boundaries or discipline any longer – 'dialogue' has opened up options and opportunities.

The conceptual framework of this study began by constructing a theoretical framework around a number of good programme evaluation models accompanied by learning theories of behaviourism, cognitivism, constructivism and then incorporated Michael Moore's 'theory of Transactional Distance' into the theoretical framework. Moore's model would therefore be fitted into the instructional design (or mode of delivery).

The next step would be to design, from the theoretical framework, a conceptual framework. This meant that the theoretical framework would serve as basis from where the conceptual framework can then be constructed. The conceptual framework is the model that would be used to evaluate the distance education programmes of the Department of Defence and the South African National Defence Force in the current study. In addition, this conceptual framework will provide some idea of what components to use when the efficiency of the Department of Defence and South African National Defence Force distance education programmes have to be assessed. In other words, this would be regarded as a form of 'student support' in the South African National Defence Force distance education programmes.

The conceptual framework is discussed in detail in chapter five under the heading 'Theoretical Framework'. According to Kumar (2001), the terms conceptual framework, analytical framework, theoretical framework and theoretical perspective are often used interchangeably depending on the manner in which the author using a particular term defines it. The term 'conceptual framework' is used here to denote a concept or way of thinking; while the term theoretical framework is a detailed explanation of the 'conceptual framework. Although there is no precise standard that specifies when a term preceding the word framework is to be used, it is based on one common principle. It specified a relationship between more than one concept and variable. A detailed definition of the term 'theoretical framework' is provided in chapter five.

1.11 RESEARCH DESIGN, METHODOLOGY AND STRATEGIES

The main approach of this research is a qualitative design. The summary of design, strategy and methods of this study is outlined in this section. These issues will be discussed comprehensively in chapter six. The design of this research addresses an approach that is non-experimental and descriptive in nature and where a current phenomenon dialogue as an integral part of instructional design and programme evaluation of distance learning programmes within the Department of Defence is observed and analysed in order to address the research problem. This design is based on qualitative approach. The feasibility of the research is assured by focusing on distance learning institutions, practitioners and students.

1.11.1 Population and sample

The population in this study comprised distance learning instructors or facilitators, distance learning course managers, and course coordinators at distance education institutions in the Department of Defence. The Department of Defence (DOD) and the South African National Defence Force (SANDF) is divided into four Arms of Service (AoSs), being the South African Army (SAA), the South African Air Force (SAAF), the South African Navy (SAN), and the South African Military Health Service (SAMHS). Each AoSs has distance learning and face-to-face institutions giving instruction to their respective students according to the specifications or doctrines of these AoSs. There are approximately 11 distance learning institutions in the Department of Defence and South African National Defence Force divided among these AoSs, including the Military Academy that caters for tertiary military education. The choice of the sample is based on their importance to the study; and ultimately the total sample drawn at three distance learning institutions; being the South African Army College, South African Air Force College, and the SA Military Health School (each from an AoSs). The South African Navy declined to participate claiming they no longer have an institution in the South African Navy (as an AoSs) conducting studies through distance education. In addition, all three institutions cited the difficulty of the availability of students if the institutions were not in school session. Instead, the researcher was allocated focused groups in all three institutions and later specific individuals were approached for information sought. These focused groups and individuals comprised of distance learning course managers, course coordinators and instructors or facilitators in those particular institutions. The unavailability of student participation was replaced by the analysis of student reports normally collected by programme managers at the end of each programme at the various institutions.

1.11.2 Data collection

Interviews. Focused group and individual (personal) consisting of, administrators, coordinators, and instructors of distance education of the South African Army College, South African Air Force College, and the South African Military Health School were interviewed utilizing unstructured, open-ended questions interview schedules.

Document analysis. Department of Defence curriculum and assessment instructions and other policy documents were analysed for relevancy. These consisted of the Defence Review, White Paper on Defence, Department of Defence Annual Reports, the first and second reports of 1997 DOD ETD Project Team, and the DOD ETD Policy. In addition, since the learners were unable to participate in the study, student reports of distance education learners of the South African Army College, South African Air Force College, and the South African Military Health School were obtained and used to analyse relevant and specific data.

Literature study. Literature study as data-collection method was utilized to determine the need and focus of the problem. In addition, this method was utilized in order to determine relevant theories and arguments surrounding the stated topic.

Researcher's experience. The researcher's own experience, as a senior military ETD practitioner in the Department of Defence supplemented the literature study and document analysis. Informal discussions with colleagues, Education, Training and Development researchers, practitioners, military and non-military practitioners in organizations such as the National Associations of Distance Education of South Africa (NADEOSA) and the South African Institute of Distance Education (SAIDE), also enhanced, supported and verified the researcher's opinion.

1.11.3 Data analysis

Data collection and analysis was a simultaneous process; that is, data analysis was begun during data collection. Data was classified according to properties that characterize them. Details about each sub-question was organised, arranged and categorised in a logical and chronological order. Categories that assisted to cluster data into meaningful groups were identified. Then synthesis and generalizations were made. The detail on this account is discussed in chapter six.

1.12 CHAPTER OUTLINE

This study is divided into eight chapters as follows:

- Chapter 1 indicates the scope of the study and methods used. It includes an introduction; problem definition, aims and objectives; background and rationale for the study; and the conceptual framework of the study.
- Chapter 2 explores Education, Training and Development (ETD) in the Department of Defence (DOD) or South African National Defence Force (SANDF). It begins with the mandate and progresses to the structure of the DOD, with reference to ETD.
- Chapter 3 discusses the design and development of distance learning programmes and materials in the DOD. This includes instructional design methodologies according to each Arm of Service (AoSs).
- Chapter 4 analyses what has already been written with reference to the concepts of distance learning in the military and in other public distance learning environments. The aim was to determine and analyse information relevant to the study.
- Chapter 5 focuses on the theoretical framework of the study. This chapter provides a structure by specifying a relationship between two or more variables. These variables are contained in Michael Moore's theory of Transactional Distance; being instructional dialogue, programme structure and student autonomy. Another variable 'dialectic' is looked into. In addition, a variable of discipline is discussed.
- Chapter 6 outlines the methodological design of the study. The interview as an instrument; the sample design, size and processing; and the collection, analysis and evaluation of data is outlined.
- Chapter 7 provides an exposition of the empirical information required for the design of Distance Education (DE) programmes with the aim of identifying the nature of discipline or dialogue and how these factors impact on student support in the SANDF.
- Chapter 8 presents a discussion of the findings of the study, conclusions reached, recommendations and implications thereof, and suggestions for further study.

1.13 DEFINITION OF TERMS AND CONCEPTS

The following are the definitions of terms as used and understood by the researcher in the context of the study:

1.13.1 Curriculum development

According to Tyler (1949:1), developing the curriculum and plan of instruction should contain four fundamental variables: the purpose of education to be attained, the experiences of

education to be provided, the effective organisation of these experiences, and the determination if these purposes have been attained. Curriculum development is a human interaction process through which curriculum decisions are made (Wulf & Schave, 1984:137). The curriculum is all of the experiences that individual learners have in a programme of education whose purpose is to achieve broad goals and related specific objectives, which is planned in terms of a framework of theory and research or past and present professional practice (Hass & Parkay, 1993:3). According to Kelly (2004:15), the central purpose of the curriculum is the acquisition of content by pupils; the delivery of the content becomes its organisation; and evaluation is focussed on the degree of attainment achieved by the pupils. According to Rose (2004:9), instructional design and curriculum development have emerged as distinct fields with separate bodies of literature; and yet there is no real basis for this distinction because instructional design processes are as appropriate for developing textbooks …and instruction as they are for creating online courses, while curriculum developers have been known to produce computer-based modules.

1.13.2 Dialectic

Is the exchange of arguments and counter-arguments advocating propositions (theses) and counter-propositions (antitheses). The outcome of the exercise is not simply the refutation of one of the relevant points of view, but a synthesis or combination of the opposing assertions, or at least a qualitative transformation in the direction of the dialogue. The aim of the dialectical method is to try and resolve the disagreement through rational discussion, and ultimately, the search for truth (Ollman, 2007:[s.p.]).

1.13.3 Dialogue

Is a two-way communication between two or more people (e.g. instructors and students). It is two-way because everybody takes part in the communication process, thus it demands partnership, respect, warmth, consideration, understanding, honesty, sincerity, etc., in order to reach an amicable solution (Moore, 1993, in Keegan, 1993). Dialogue occurs as learners engage with course materials, facilitators and fellow learners, and relate the course content to their organisational contexts (Welch & Read, 2005:181). The term ‘dialectic’ is derived from Greek meaning ‘to converse’ or ‘to discourse’ (Flew. 1981:94).

1.13.4 Discipline

The Longman (2001:382) dictionary defines discipline in three distinct ways, as (1) the practice of making people obey rules and orders, (2) a method of training your mind or learning to control your behaviour, or (3) an area of knowledge that is studied. This study is concerned with the combination of all three explanations, in that it refers to the formal structure in teaching and learning a subject. Ralph Tyler’s (1949:126) curriculum building

deals with planning a program of instruction from a point of view of the students examining its purposes, functions and structure in order to attain a picture of their interrelations. Thus, discipline, specifically subject discipline or subject matter forms an important component of a course rationale (Posner & Rudnitsky, 2006:84-85). Another meaning of discipline is it relates to authority with which it is often intertwined and seen as precondition to an authoritarian order and control of society.

1.13.5 Distance learning

Distance learning is referred to in many terms such as distance education, distributed learning, online learning, and e-learning and/or web-based instruction (Duangploy, Williams, & Gray, 2007:13). The University of Pretoria (2009:5), defines distance education as educational provision in which teaching and learning are predominantly asynchronous. That is, teaching and learning or instruction can take place on- and off-campus (traditional and face-to-face instruction). Distance learning requires different kinds of learning modes, such as independent learning, group learning, and discussion with learners (Kubota, Terashima, Nakahashi, & Morioka, 2008:169). Distance learning is a planned learning programme characterised by self-study (Makin, 2001:25). Distance education is the extension of traditional and formal learning and instruction (Wang & Liu, 2003:[s.p.]). It has been shaped into a new type of information process of instruction and learning, covering both pre-tertiary and tertiary levels as well as lifelong education activities *(Ibid)*. Distance learning means making materials accessible instantaneously on demand, with high production values that are routine, and learners and teachers can communicate either synchronously or asynchronously (Massy & Zemsky, 2004:11). Distance learning is a learning environment where student and teacher are separated by space, but not necessarily by time (Valentine, 2002:[s.p.]).

1.13.6 Drop-out

Woodley (2004:54) contends that while most researchers agree that 'drop-out concerns students who leave an educational course or programme without successfully completing it' lack of precision has caused some concerns in this area of research because different researchers have used different definitions of drop-out, and have often failed to say which one they are using. Drop-out is non-completion in distance education (Parker, 1999:[s.p.]). Drop-out is synonymous with unsuccessful completion, early departure, non-persistence, and withdrawal from distance learning programmes (Yorke, 2004:19-21).

1.13.7 Education, Training and Development (ETD)

Education refers to activities that provide the knowledge, skills, and moral values that are needed in the ordinary course of life (Erasmus & Dyk, 2003:2). Education encompasses a wide range of activities rather than merely equipping an individual with specific skills to

perform a particular job or function (Meyer, Bushney, Katz, Knoke, Lategan, Ludike, Meyer, Nel, Schenk, Smith, van Niekerk, & Wolfson, 2007:5). Training is the way in which an organisation uses a systematic process to modify the knowledge, skills and behaviour of employees so that it can achieve its objectives (Erasmus & Dyk, 2003:2). Training entails the transfer of specific skills to an employee so that he or she can perform a very specific job or task (Meyer, *et al*, 2007:6). Development refers to employee development within an enterprise rather than that of the individual in general (Erasmus & Dyk, 2003:3). Development occurs when ongoing learning opportunities are created so that employees can improve and maintain high levels of performance (Meyer, *et al*, 2007:6). Education, Training and Development Education (ETD) is the term used to describe the practices which directly or indirectly promote or support learning (*Ibid*). Presenting, training, designing learning materials and managing training programmes are all examples of such practices (ETD Practices Project, 1998 cited by Meyer, *et al*, 2007:6). Education, Training and Development Education (ETD) is regarded as a systematic and planned approach to change the knowledge, skills and behaviour of people in such a way that organisational objectives are achieved (DOD ETD Project Team, 1997a:A1). Training and Development **(**ETD) in its broadest sense could be defined as the total set of human activities where a person who does not yet know or does not yet have the ability to do something is guided by a person who knows and can do something towards instilling knowledge and developing skill, ability and attitude.

1.13.8 DOD ETD Process.

The ETD Process entails the phases of needs analysis, design, delivery and the evaluation of ETD (Meyer, *et al*, 2007:7). The DOD describes the ETD Process as a systematic and planned process to change the knowledge, skills, abilities and behaviour of people in such a way that organisational objectives are achieved (DOD ETD Project Team 1997a:19). As such the DOD ETD Process is a systematic process used by the department of defence to plan and design an instruction or curriculum to be applicable to the department of defence teaching and learning institutions.

1.13.9 Instructional design

'Instructional design' and 'instructional development' are used interchangeably in the literature of instructional technology (Kang, 2004:39). Instructional systems design (ISD) is the systematic design, development, implementation, and evaluation of instructional materials, courses, lessons, units, modules, and curricula in order to improve student learning and teaching efficiency (Abedor & Sachs, 1984 cited by Martin, 2004:13). Instructional design is the systematic planning and development of instruction (Ruffini, 2000:58). Instructional design is a discipline that employs systematic processes involving the use of

learning and instructional theory to ensure educational quality and optimal student learning environments (Collins & Berge, 2003:21). According to Briggs (1970), instructional design is the entire process of analysis of learning needs and goals and the development of a delivery system to meet the needs; it includes development of instruction and instructional materials and activities; and tryout and revision of all instruction and student assessment activities.

1.13.10 Student support

Student support is to provide educational help to the student; it should focus on distance education as a cost-effective alternative to face-to-face tuition and as a highly individualised mode of learning; it helps in the successful completion of the course (Gujjar, Chaudhry & Chaudhry, 2009:354). Student support is that as a teacher's task is to construct the conditions of the learner's interaction such that their experience enables them to learn support maybe required in order that students come to an understanding of both the material and the conditions being constructed (De Fazio, Gilding & Zorzenon, 2000:[s.p.]). Student support is the entire range of methods and strategies employed in the presentation and delivery of courses aimed at assisting and enables students to comprehend fully, assimilate and master the knowledge, skills, abilities and attitudes needed to achieve success in their studies (SAIDE, 1999:14). Student support is aimed at enhancing the conversation between the student and the teacher (UNISA, 2010:10).

1.13.11 Transactional distance

According to Moore (1993, cited in Keegan, 1993:23), three major variables affect the transactional distance: (a) the instructional dialogue, (b) programme structure, and (c) autonomy of the student. Mueller (1997[s.p.]) says that the term transactional distance replaced the older term distance education. It denotes the special nature of the relationship between the student and the instructor during the distance learning event: mutually acting on each other, affecting each other to evoke an experience, a meaning, for the individual student during this event (Stirling, 1997[s.p.]). Transactional distance theory is a set of interrelated distance learning systems that is sustainable by student support (Gorsky & Caspi, 2005[s.p.]). Therefore, transactional distance is the theory that describes the nature of the relationship between the students, the instructor and the institution which is responsible for instructional policies, instructional design issues, and policy-making in relation to the physical space felt by the student. Transactional distance is determined by the function of "structure" and "dialogue" and "learner autonomy"; and be employed to assess distance learning environment (Kubota, Terashima, Nakahashi, & Morioka, (2008:167).

1.14 CONCLUSION

This chapter served as an introduction to the entire study. It highlighted some of the typical problems often encountered in the distance learning mode of instruction and institutions. It discussed the background that led to conducting the study and the rationale for undertaking the research by describing the importance of student support in distance learning settings. It highlighted the problem statement, the main research question and sub-research questions. The aims and objectives of the study were also discussed in this chapter. This chapter also briefly discussed the research methodologies and strategies that include the population, sample, data-collection techniques, and data-collection methods. The chapter concluded by describing the chapter outlines of the entire study and defined some important terms that will be used in the study. The next chapter discusses the Department of Defence (DOD) and/or the South African National Defence (SANDF) Education, Training and Development (ETD) system and problems experienced in general and specifically in distance learning mode of instruction.

CHAPTER 2

EDUCATION, TRAINING AND DEVELOPMENT (ETD) IN THE DEPARTMENT OF DEFENCE (DOD) AND SOUTH AFRICAN NATIONAL DEFENCE FORCE (SANDF)

2.1. INTRODUCTION

This chapter discusses the education and training system in the Department of Defence in general and distance education in particular. It begins by reviewing the mandate given to the Department of Defence by the Constitution of the Republic of South Africa. The organizations and structures of South African defence system and their responsibilities to the Education, Training and Development system followed whereby the need for Education, Training and Development in the Department of Defence is also raised. The chapter discusses why the Department of Defence prefers to use the terms, "distance education" and "distance learning" as opposed to other terms used in this mode of instruction and delivery, the reasons for preferring to adopt distance learning, and the fact that the institutions of the South African National Defence Force currently provide their instruction through distance education.

The chapter also discusses the level of technology utilized in distance education compatible with recorded generations of distance education. In an endeavor to transform the Department of Defence ETD system, the Project Team undertook a study within the South African National Defence Force in order to obtain this transformation. A number of problems were identified by the Project Team within the Department of Defence ETD system. The chapter ends off by highlighting some of these problems, especially those that had a negative impact on distance learning. The possible solutions to these problems are also highlighted.

2.1.1 The mandate of the Department of Defence

The mission, vision and aim of the department of defence derive from the mandate contained in the Constitution, Defence Review and White Paper on Defence (DOD Annual Report, 2003/2004:4). The mission is to provide, manage, prepare and employ defence capabilities commensurate with the needs of South Africa as regulated by the Constitution, national legislation, and parliamentary and executive direction. In its vision, the Department of Defence ensures effective defence for a democratic South Africa, thereby enhancing national, regional and global security through balanced, modern, affordable and technologically advanced defence.

Thus, the aim of the Department of Defence is to defend and protect the Republic of South Africa, its territorial integrity and its people in accordance with the Constitution. These

imperatives are long term in nature and form the basis for the South African National Defence Force design, required to produce its capabilities needed to execute its mandate. The force design and defence capabilities are designed to protect the sovereignty of the Republic of South Africa and to deter aggression. In times of peace, the Defence Force's capabilities are utilized to the country's best advantage (DOD Annual Report, 2002/2003:2).

The extremely high cost of modern weapon systems, length of time required in introducing the systems into service and the relatively long lifespan of modern weapon systems require the Department of Defence to make long-term capital acquisition plans. Similarly, the level of skills required by the personnel operating, supporting and maintaining the weapon systems requires the development of long-term human relations and training plans. Hence, training has always formed an integral part of the preparation of forces for war as constantly been undertaken by the South African National Defence Force (South African White Paper on Defence, 1996:10). Training is directed towards equipping its members with the necessary skills, knowledge and attitudes for service in the South African National Defence Force.

The South African National Defence Force provides more than two thousand formal courses per year, ranging from professional and military development courses to war fighting skills training (South African Defence Review, 1998:84). Most of these programmes are offered through conventional face-to-face or residential approach and last a week while others last a year or more. In addition, the South African National Defence Force also trains a large proportion of its members in industry-related skills. While the starting level for most courses is at Grade 12, some senior courses are presented on a post-graduate level. The Defence Review suggested that distance education through correspondence with an inclusion of a practical phase is another option to manage the above programmes and providing education and training to Department of Defence members (South African Defence Review, 1998:85).

2.1.2 Organisations and structures of the South African Defence system and their responsibilities to the Department of Defence (DOD) Education, Training and Development (ETD)

The Department of Defence is a large, complex and rather complicated organisation that is continuously transforming and constantly reviewing its organisational structure in order to ensure alignment between the department's strategic objectives, the budget allocation, ordered commitments and likely missions. It takes all the measures required to ensure that defence policy is fully aligned with all aspects of national policy. All new legislation promulgated are analysed, and Department of Defence policy that requires amending or promulgation is duly

amended or promulgated as Department of Defence Instructions (DODI) and/or Directives. The Department of Defence policy is responsible for administering and directing the activities of the Department of Defence. The Department of Defence, unlike most other state departments, does not provide a direct service to the citizens of South Africa, but does so through the state departments that it supports when so tasked. It provides support required by other state departments as efficiently, effectively and economically as possible. The outputs provided by the Department of Defence are in most cases not easily visible to the public, with the exception of the operations executed by the South African National Defence Force in the form of Peace Support Operations (PSO) and disaster relief in neighbouring countries and assistance provided to the South African Police Service (SAPS) in emergency situations.

The Department of Defence structure helps to understand how and where, for example, ETD policies and plans are formulated, promulgated and executed in accordance with relevant regulations such as the Skills Development Act. The Department of Defence organizations and structure are important in the study at hand in that they affect the Department of Defence ETD. The Department of Defence ETD policies and/or suggestions are analysed and approved at some Department of Defence organisational and hierarchical levels. Like other public services or entities, the Department of Defence also recognizes, employs and is divided according to different levels. At Level 0, the Minister of Defence (MOD) and the Deputy Minister of Defence (Table 2.1) (collectively known as the Ministry of Defence – MOD) are responsible for providing political direction to the Department of Defence. With reference to ETD, the MOD establishes the basic doctrine in order to provide the foundation for its practical application.

Thus, the organisation and structure of the South African Defence system provides the philosophical framework within which training should be conducted. The Department of Defence ETD Doctrine is complemented by the principles of national education, like the National Qualification Framework (NQF), the South African Qualifications Authority (SAQA), and the Arms of Services (AoSs). In addition, strategies are developed to provide longer-term direction for Department of Defence ETD. They set key objectives, define responsibilities, provide guidance, and allocate priorities. The Department of Defence ETD strategies are developed and promulgated by the appropriate staff in the Ministry of Defence. The allocation of responsibilities for the direction of Department of Defence ETD according to the Levels, Organisation or Forum in the DOD and the forum by which this is done is summarised in Table 2.1 below. The two primary functional entities within the Department of Defence at Level 1 are that of the Defence Secretariat (Def Sec) and the South African

National Defence Force (Table 2.1). These entities advice the Minister of Defence through the Council on Defence (CoD) on the military implications of defence policies, which are balanced against political demands and constraints. They have overall responsibility for policy governing the provision of DOD ETD. The control of Department of Defence ETD is retained at this level with the detail allocation of resources and the control of commitments. The Department of Defence ETD policies give direction on how strategies are to be implemented as well as guidance on the meeting of key objectives. In addition, at Level 2, the SANDF consists of four Arms of Service (AoSs), namely the South African Army (SAA), South African Air Force (SAAF), South African Navy (SAN) and South African Military Health Service (SAMHS) (Table 2.1).

Members of the South African National Defence Force are educated, trained and developed according to their AoSs character, Corps, Mustering and occupational specifications and specializations. The AoSs are responsible for setting, developing and promulgating individual and Corps ETD policies. They also control and are responsible for determining their individual ETD standards.

At Level 3, Divisions and Formations (Table 2.1) provide Department of Defence ETD directives down to unit level. Other formations such as the Training Command Formation develop and promulgate Joint Department of Defence ETD policies. They are also responsible for the provision of professional ETD through fourth level structures. The Training Command Formation is discussed in detail under the Training Command Formation section.

The training institutions are normally located at Level 4 in the Department of Defence organizational structure (Table 2.1). They are responsible for the provision of ETD opportunities. They produce, implement and evaluate individual training programmes. Those that fall under the ambit of Training Command Formation are responsible for developing and implementing joint and professional ETD opportunities.

2.1.2.1 The SA Defence System and their responsibilities in the DOD ETD

LEVEL	ORGANISATION / FORUM		RESPONSIBILITY
0	**Ministry of Defence (MOD)** Minister of Defence Deputy Minister of Defence [Council on Defence]		DOD ETD Doctrine DOD ETD Plans DOD ETD Strategy
1	**Department of Defence (DOD)** [Defence Staff Council-DSC]. [Military Command Council-MCC]		DOD ETD Policies. Allocation and Control of DOD ETD Resources.
	Defence Secretariat. Secretary for Defence (Sec Def).	South African National Defence Force (SANDF). Chief of the SANDF.	
2	**Arms of Service (AoSs)** SA Army (SAA) – Chief of the Army. SA Air Force (SAAF) – Chief of the Air Force. SA Navy (SAN) – Chief of the Navy. SA Military Health Service (SAMHS) – Surgeon General.		Setting, Development and promulgation of individual ETD Policy. Determination of individual unique ETD Standards. Control of individual ETD.
3	**Divisions (Divs)** e.g. Finance, Policy & Plans, Joint Support, Joint Operations, etc. **Formations (Fmns)** e.g. Training Command, Artillery Fmn, Amour Fmn, Engineer Fmn, Intelligence Fmn, etc.		DOD ETD Directives/ Instructions. Development and promulgation of Joint DOD ETD. Provision of Professional DOD ETD.
4	Units, Bases, Stations, Training Institutions (e.g. Corps schools, Training Centres, etc.).		Production of training programmes. Implementation of joint and unique individual training.

Table 2.1: Organisational diagram of the SA Defence System and their responsibilities to the DOD ETD. (Adapted from the SA Dept of Defence 1995/1996 Annual Report and modified for the study)

2.1.3 Training Command Formation

In 1997, the DOD ETD Project Team realised that there was a lack of jointness or coordination of ETD among the AoSs, especially where courses and/or training were common (DOD ETD Project Team Report, 1997b:3). The fiscal year 2001/2002 heralded the official

launch of the Training Command Formation (Trg Comnd Fmn) as a functioning business unit of the SANDF. All training in the SANDF is vested in the Chief of the South African National Defence Force (CSANDF) in terms of the Constitution (1996) and the Defence Act.

The Trg Comnd Fmn is responsible for the formulation, developing and promulgation of the Department of Defence ETD Policy for military and civilian members of the DOD as an ongoing process. It oversees the DOD ETD services; providing joint and common "non-combat/mission" ETD opportunities; managing the Department of Defence's Training Command Delivery System; developing the HR development policy and ETD Administrative, Operational and Technical (AOT) policy and doctrine, linking up with other state departments and statutory forums on behalf of the Department of Defence.

The Trg Comnd Fmn is also responsible for developing, provisioning and implementation of the Department of Defence ETD Systems Integrity policy and doctrine and provisioning of the DOD ETD quality assurance process. It is responsible for the implementation of the South African Qualifications Authority (SAQA) and the Skills Development Acts within the Department of Defence. It is also responsible for the promotion of a culture of life-long learning and the encouragement of all the Department of Defence learning institutions to seek accreditation with their relevant Sector Education Training Authorities (SETAs).

The Training Command Formation presented joint learning opportunities in order to promote and ensure the continuous improvement of the Department of Defence ETD system. The Training Command Formation is responsible for providing military professional development as it oversees approximately 52 Department of Defence ETD institutions.

Various fourth level structures that presented joint, common "non-combat/mission" and professional ETD opportunities within the Department of Defence fall under the direct command and control of Training Command Formation (Figure 2.1). This includes the Military Academy that provides academic and military training programmes throughout the year in distance and residential modes. The South African National Defence College (SANDC) provides an integrated strategic security developmental learning opportunity called the Executive National Security Programme (ENSP) to senior members of the Department of Defence bi-annually.

The South African National War College (SANWC) presents the Joint Senior Command and Staff Programme (JSCSP) once a year to senior members. The SANDF COLET is an

establishment for educational technology equipping the Department of Defence instructors with the necessary skills of facilitation, teaching and instructing through both distance and face-to-face modes of instruction. The War Simulation Centre provides simulation activities to senior staff courses. The Personnel Service School (PSS) provides human resources, public relations and quality management opportunities to the Department of Defence members. The organisational diagram of Trg Comnd Fmn is provided in Figure 2.1.

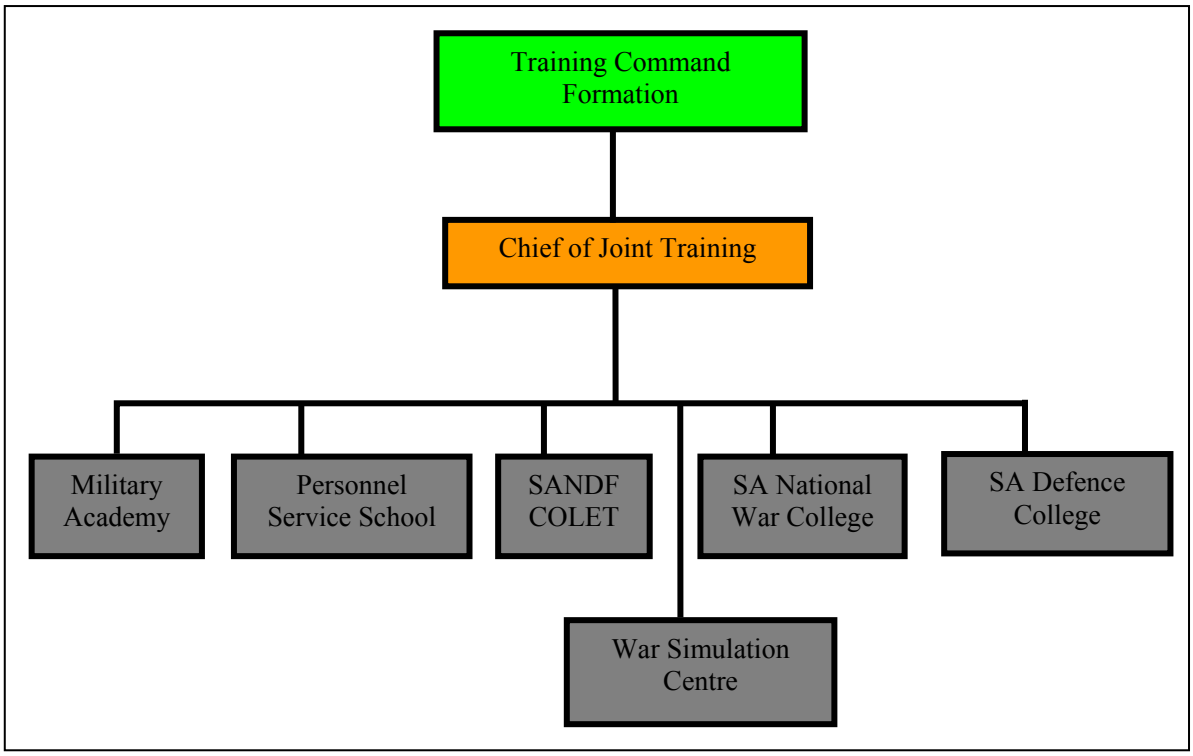

Figure 2.1: Organisational Diagram of Training Command Formation (Trg Comnd Fmn). (Adapted from the S.A. Department of Defence 2001/2002 Annual Report)

2.2 THE NEED FOR EDUCATION, TRAINING AND DEVELOPMENT IN THE DEPARTMENT OF DEFENCE

The Department of Defence regards Education, Training and Development (ETD) as a systematic and planned process to change the knowledge, skills and behaviour of its people in such a way that organizational objectives may be achieved (DOD ETD Project Team Report, 1997a:5). ETD programmes within the SANDF are a cardinal means of building and maintaining a high level of professionalism (White Paper on Defence, 1996:10). These programmes are based on clearly identified training needs, linked to work, and to South African national and international standards. In this regard, the Constitution provides that all members of the SANDF "shall be properly trained in order to comply with international standards of competency" (Section 226 (5)).

Thus, it is on this basis that the Department of Defence endeavours to link its learning programmes to the government's National Skills Development Strategy of 2001. The DOD is continuously aligning its programmes with the outcomes-based format. To obtain this

alignment, the SANDF established a Defence Training Board, which is affiliated to the South African Qualifications Authority (SAQA), thereby gaining access to the National Qualification Framework (NQF), (South African Defence Review, 1998:84). At the heart of training is the preparation of officers and other ranks to fulfill the SANDF's function of defence against external aggression. Special training programmes are required to standardize procedures and meet other Constitutional obligations. These programmes include equal opportunities programmes, civic education programmes and other occupationally directed ETD programmes to meet the particular needs of full-time forces (South African Defence Review, 1998:84-86). Training is structured hierarchically to allow for individual career development, popularly known in the Department of Defence ETD system as "career path".

ETD plays an essential role in developing the political and ethical dimensions of military professionalism. Specific training programmes are conducted to prepare military personnel for regional security co-operation and involvement. The SANDF, together with the International Committee of the Red Cross, developed a comprehensive curriculum on international humanitarian law and international law on armed conflict. In addition the Department of Defence constantly educates trains and develops its personnel through ETD programmes.

2.3 THE CONCEPT 'DISTANCE EDUCATION' IN THE DOD

Many terms, like 'distance education,' 'distance learning,' 'flexible learning,' etc., in essence referred to a learning situation where the student and the facilitator are separated from each other by time and distance. Distance learning is utilised by academic institutions such as the University of South Africa (UNISA), Technikon South Africa and Vista University[5] while the concept of 'virtual' or 'distributed learning' is used in Canada and America to emphasise the role of advanced information communication technologies such as the World Wide Web and satellite systems. Open learning is the term normally preferred in Europe, especially in England. These terms and concepts are used interchangeably in the field of distance education and are discussed as such in the current study.

On the African continent, various terms are used for this mode of learning delivery. In sub-Saharan Africa commonly used terms associated with distance learning are home study, independent study, correspondence education, student centred education, self-instruction,

[5] On 1 January 2004 the new UNISA officially came into being through the merger of the former University of South Africa and Technikon Southern Africa and the incorporation of Vista University Distance Education Campus, Vudec.

open access, adult education, external studies, distance teaching, distributed learning, technology-based or mediated education and continuing education (Rumajogee, 2002:21).

Although e-learning is often used synonymously with distance learning, it only denoted the distance learning where local area networks (LAN) and wide area networks (WAN) are utilised as delivery media (Van der Walt, 2004:13). A common term, which relates to the previous statement, is 'blended learning' that advocates a mixture of delivery modes, for example, a learning programme that is presented with a combination of classroom and distance learning. Distance learning (DL) is the preferred term in the Department of Defence as it emphasises two important factors. Firstly it emphasised the responsibility of the student in the learning situation and secondly it is focused on the outcomes of the training namely that learning is supposed to have taken place (DOD ETD Project Team Report, 1997a:61).

2.4 DISTANCE LEARNING IN THE DOD AT PRESENT

Recently the Department of Defence Distance Learning Task Team[6] undertook a survey to determine the present need for distance learning in the Department of Defence. The questionnaire was distributed through the services and division directors of ETD to their respective training units. From the responses, it was determined that the following training institutions or units and their corresponding AoSs are in some form or the other involved with distance learning:

a. SA Army College (SAA),
b. SA Air Force College (SAAF),
c. School for Military Training (SAMHS),
d. School for Military Health Training (SAMHS),
e. SA Army School of Engineer (SAA),
f. School of Armour (SAA),
g. SAS Saldanha (SAN),
h. Naval Staff College (SAN),
i. SAS Simonsberg (SAN),
j. Infantry School (SAA), and
k. Defence Intelligence College (SAA).

There are approximately 11 institutions in the Department of Defence that conduct their education, training and development through distance education. The School of Artillery, the

[6] In 2003, the current Chief of Joint Training, appointed a task team to do a thorough development with regards to distance learning in the DOD.

SAMHS' School for Military Health Training, and School of Military Training were not in Viljoen's 1999 original list (Appendix D).

2.5 REASONS FOR UTILISING DISTANCE LEARNING IN THE DOD

Many of the advantages of distance learning as cited by authors such as Nopachai and Zhang (1999:[s.p.]) also applies to the Department of Defence environment, for example, that it provides more flexibility in the learning situation, that costs for training are reduced and that more diverse students can be accommodated. In her paper presented at the 2002 DOD ETD Conference, the then Commandant of COLET, stated that, "the distance learning opportunities offered by COLET are much more flexible and client-oriented" (Bless, 2002:28). She went on to say that the opportunity accommodates even the lack of free time of the instructors, since distance learning is a part-time activity (*ibid*). Moreover, it reduces the cost of training as less subsistence and travel is required, and is less time consuming. Thus it is more efficient and effective. It is also less stressful for the student's unit and family. The students remained in their usual environment and even the contact sessions with the ETD Practitioners could take place at their unit.

In addition, since a large part of the learning takes place without the physical presence of the instructors, more students can be accommodated per programme, thus an increased number of students per year can be taught. Accordingly the College of Educational Technology (COLET) stands a better chance to satisfy the demands of all Department of Defence clients (Bless, 2002:29).

2.6 MODE OF DISTANCE LEARNING DELIVERY IN THE DOD

The Department of Defence is concerned with what methods and technologies are employed to enhance the learning process and how they were used in practice. At present, the Department of Defence is delivering distance learning mainly by means of paper-based or text-based materials, such as at the SAAF College and the College of Educational Technology (COLET). Others, such as the Army College, have a component of electronic delivery in the form of computer-based packages and the Intranet.

It is foreseen that there would be a continuum of delivery modes ranging from paper-based correspondence courses to print-based and computer-based to e-learning in the future (Figure 2.2 depicts such a continuum). These different generations are explained in detail in the 'Generations of Distance Education' section 2.7 of the current chapter. A lot of work needed to be done because the majority of students in the Department of Defence had little access to

computers. The technology used to present learning programmes is obsolete, old fashioned and had not been adapted to the distance learning environment.

2.6.1 Distance learning delivery in the Department of Defence (DOD)

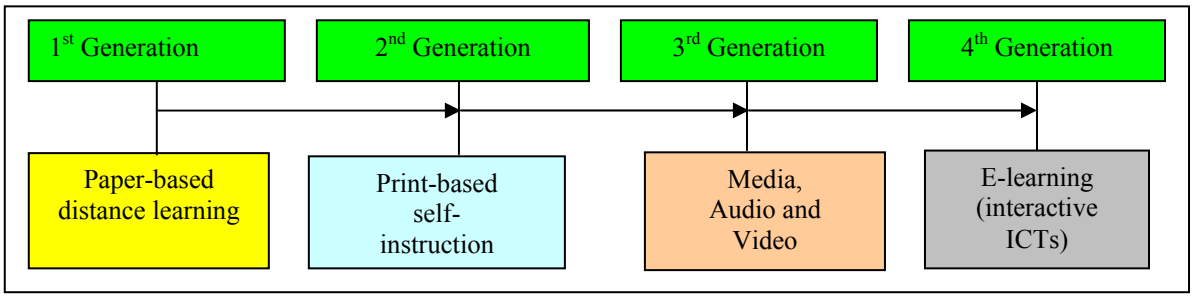

Figure 2.2: A continuum of distance learning delivery in the DOD

2.7 GENERATIONS OF DISTANCE EDUCATION

It had been said earlier that it is foreseen that there would be a continuum of delivery modes of distance learning from paper-based correspondence courses through print and computer-based to e-learning in the future in the SANDF. This is possible as there has been development of different forms of distance education in developed countries over time. This development has been associated with technology of the relevant time (Garrison, 1989:52, 1996:17). These developments and their associated technologies have been classified into different generations of distance education (Keegan, 1993:19, Bates, 1994:1574, Garrison, 1989, 1996).

The major generations are discussed in this section and they, mostly, overlap each other. However, while Garrison (1989:235-41) identified three 'generations; Rumble (2001:73) identified four generations; and authors like Taylor (2001:[s.p.]), identified five. Other authors like Beaudoin (2003:[s.p.]), identified three stages of distance education. Beaudoin (2003:[s.p.]) argued that the rapid evolution of distance education delivery systems over the past twenty years had frequently been categorised into three stages, from correspondence education, to technology-assisted education and, more recently, social networking. According to Montgomerie, Irvine and Davenport (2001:[s.p.]), the instructional techniques and even the course content of distance education courses have, since its inception, been constrained by the speed and quality of student and instructor interaction. For over a hundred years, distance education is limited by the speed that the local postal service could deliver correspondence lessons. However, for the past 20 years two approaches have dominated how distance education is being delivered in developed countries: (1) audio conferencing and compressed video conferencing is being used for synchronous delivery, and (2) the Internet and its progeny, the World Wide Web (www), are used for asynchronous delivery (Montgomerie *et al.* 2001:[s.p.]). These approaches use different technologies.

According to Jacobson and Mark, (1995:[s.p.]) and Siberman, (1996:[s.p.]), as cited by Montgomerie *et al.* (2001:[s.p.]), students are active partners in the learning process. Students and instructors should be able to interact with each other and with information and instructional material in many different ways. This means that both synchronous and asynchronous facilities must be available. Features that are found in synchronous and asynchronous facilities are as follows:

2.7.1 Synchronous delivery

(1) More than two classes can be connected at the same time.
(2) A simple technological device is used to control which classrooms are connected.
(3) Each classroom is provided with a data projector to display the image of the instructor, image of the students at all other classrooms, students at one particular classroom, and three-dimensional images.
(4) Each classroom contains a monitor so that the instructor may view students in remote classrooms.
(5) Each classroom contains a large display, interactive electronic whiteboard (e.g. SmartBoard™), computer output, digitalized images, and hand-written comments on one board are reproduced on connected boards.
(6) A simple device (e.g. GUI) allows either centralised or individualised control displays in all classrooms.
(7) Instruction can originate from any classroom or from a remote instructor connected to the Internet.
(8) Video and audio are broadcast quality (e.g. MPEG-2).
(9) A centralized video server allows the storage and display of full-screen MPEG-2 streaming video and archiving of educational objects for student/instructor use.
(10) Each classroom contains networked computers that can be used to drive the interactive electronic whiteboard, allow students to collaborate using workgroup software, access the video server, etc., (adapted from Montgomerie *et al*. 2001:[s.p.]).

2.7.2. Asynchronous delivery

(1) High speed connections are available to student homes.
(2) A simple technological device is connected to allow students to access the different services available on the network.
(3) Students may use the same workgroup software on their home computers as in the classrooms.
(4) The school network is connected to the Internet, with authentication controlling different levels of access.
(5) The important streams from the synchronous lectures are stored on the video-server.
(6) Students are able to view the synchronous lectures from the video-server, with VCR-type control.
(7) Students are able to communicate with each other, with the instructors, submit assignments, use Web-based discussion groups, access asynchronous courses (e.g. Web-based instruction courses), etc.
(8) Parents/Family members can have a separate authentication on the school network to allow them to communicate with instructors and school officials, use the

Internet, take adult education courses, etc. (adapted from Montgomerie *et al*. 2001:[s.p.]).

2.7.3 The First Generation of Distance Education

According to Taylor (1995:[s.p.]):

> "Although Moses is regarded by many as the first external student, it was not until print technology replaced stones as the medium of instruction that correspondence education became an accepted part of mass public education systems".

The correspondence model is regarded as the first generation of distance education based on print technology (Taylor, 1995:[s.p.]; Peters, 1998:19). The first generation of distance education relied mainly upon correspondence and the mail system. It still remains the primary technology of distance education today (Keegan, 1993:17-18) and will continue to be the most-used form of delivery in the foreseeable future (Verduin & Clark, 1991:81). According to Garrison (1989:[s.p.]), the first generation will not be replaced by the second and third generations but will continue to have an effect alongside, or in correlation with, these.

Correspondence became the bridge between instructors and their students and served as the first basic pedagogic pattern for distance education (Peters, 1998:19). Print is by far the most-used medium and is considered the most important in the presentation of learning materials by distance educators (Verduin & Clark, 1991:81). Bates (1982) cited by Verduin and Clark (1991:82) noted that print is the most convenient and flexible medium for the presentation of new information and ideas and could be used by students selectively and at their own pace. Print technology is characterized by such media as books, reports, paper-based pamphlets, and journals. Later correspondence study did not just denote print study at a distance, but also the use of telephone tutoring as well as audiocassettes, phonograph records, and other mailable instructional materials delivered along with textbooks and study guides (Verduin & Clark, 1991:81).

Advantages associated with this generation are that it is a cost-effective and efficient method of providing access and meeting the demands for educational services (Keegan, 1993:18). Verduin and Clark (1991:82) noted that it was familiar, inexpensive, and portable. Its format allowed students access to any section, in any order, for any length of time. It may also be attractive to environments that have no other instructional medium except having paper-based and print technology. According to Verduin and Clark (1991:18), it was the only medium that could be utilised without additional equipment, anytime and anywhere that a source of light was available.

However, its major disadvantage is the lack of direct interaction between the students and the instructors and amongst the students because it depended largely on correspondence and mail to communicate messages. It has been constantly said that a critical dialogue to understand current knowledge and to encourage the development of new perspectives characterizes the transaction between instructor and student in distance education. According to Keegan (1993:17), "in the emerging paradigm the emphasis is on interpersonal and small group communication". In addition, it is that some authors might lack writing skills to distinguish between important and unimportant information. Another downside with print instruction at a distance is the limited speed of interaction (Verduin & Clark, 1991:82).

2.7.4 The Second Generation of Distance Education

The introduction of computers played a significant role in distance education learning resources as it added weight and value. Taylor (1995:[s.p.]) says the first generation of distance education was important to the second generation. He (Taylor) called it the Multi-media Model of distance education, because it entails the use of highly-developed and refined teaching-learning resources, including printed study guides, selected readings, videotapes, audiotapes, and computer-based courseware, including computer managed learning (CML), computer assisted learning (CAL), and interactive video (disk and tape).

The second generation was based on the possibilities provided by different versions of teleconferencing (Peters, 1998:10). Keegan (1993:18) observed that the second technological generation, that of teleconferencing, represented a radical move from the principle of mass access by requiring the student to give up considerable control of when and where to study. On the other hand what students lost in accessibility, they more than gained in quality of interaction. Students were now members of a learning group where immediate and sustained dialogue was possible not only with the instructor but also with fellow students. Keegan (1993:18) says that, "with the reality of sustained communication came the realization that education was more than providing access to information." Students were now provided with an improved opportunity and climate to analyze ideas, values and perspectives critically and in the process create and validate understanding with the instructors and among themselves.

According to Taylor (1995:[s.p.]), one of the strengths of the Multi-media Model of distance education was that:

> "It had concentrated efforts on improving the quality of the student's individual interaction with learning materials, such as specially designed printed materials, audiotapes, videotapes and computer-based learning packages, aimed at teaching concepts and cognitive

> skills associated with clearly defined objectives in the context of a coherent curriculum."

Bates (1991:6), cited by Taylor (1995:[s.p.]), referrers to the Multi-media Model as social interaction between students and instructors and it needs to be balanced with the individual student's interaction with these teaching-learning resources.

2.7.5 The Third Generation of Distance Education

According to Peters (1998:10), the third generation of distance education went on to integrate the opportunities provided by learning with the help of personal computers, which were able to intensify trends in both the first and the second generations. First by providing suitable software, they gave direction and, through interaction, added value to the self-teaching of the student who was learning in isolation; and they also made databases easily available to help students gain knowledge independently of their instructors. In addition, they supplemented second-generation distance education by means of computer-mediated communication (CMC). With regards to first and second generations of distance education, the third generation was neutral in terms of pedagogics, which permitted distance education even greater flexibility and an enormous potential for change (Peters, 1998:10).

Keegan (1993:18) calls it 'the computer generation' because he regarded the third generation as perhaps the most promising and dominant application of computer-mediated communication (CMC). According to Taylor (1995:[s.p.]), Telelearning Model, as he referred to the 'third generation' of distance education, was based on the use of information technologies, including audio-teleconferencing, audiographic communication systems (e.g. Smart 2000), video conferencing, and broadcast television/radio with attendant audio-teleconferencing. This generation of distance education provided opportunities for synchronous communication. It also provided distinct methods of interaction educationally at a distance because "CMC combined the telecommunications of the second generation with computer capabilities" (Keegan, 1993:18).

In the third generation of distance education, distance educators have also recognized the need to provide opportunities for social interaction to support effective learning and have therefore tried to simulate face-to-face communication through the development of instructional systems based on the 'third generation' of distance education technologies such as audio-teleconferencing, audiographic communication systems, videoconferencing and computer-mediated communication (CMC) that can support contiguous two-way communication between students and instructors. However, Taylor (1995:[s.p.]) warned that it was worth

noting that the necessary balance between social and individual interactivity varied from course to course and it would be a function of such variables as the type of subject matter, the specific objectives of the course and the structure and quality of the learning materials, and not least, the student target audience.

2.7.6 The Fourth Generation of Distance Education

The fourth generation of distance education, the Flexible Model, as Taylor (2000:[s.p.]) called it, promised to combine the benefits of high quality CD-ROM-based interactive multimedia (IMM), with the enhanced interactivity and access to an increasingly extensive range of teaching-learning resources offered by connection to the Internet. Although the fourth generation of distance education was still gaining momentum, "as the new millennium was approached, there is already emerging the 'fifth generation' of distance education based on the further exploitation of new technologies" (Taylor, 2000:[s.p.]).

According to Taylor (2000:[s.p.]), depending on an institution, "the essential features of a fourth generation electronic teaching and learning environment support a learning process that is interactive, non-linear and collaborative." These features included the use of an interactive study chart as a basic navigational tool, which sets the broad parameters of the subject matter content to be investigated, and lists a number of exemplary references. References were electronic and linked to a specific Universal Remote Links (URL). Additionally, the students were free to surf the Net for supplementary teaching-learning resources that met their specific needs. They were also able to download assignments, with those of sufficient quality being added to the teaching-learning resources database for reference by future students *(ibid)*.

Taylor (2001:[s.p.]) said that at the University of Southern Queensland, the interaction with courseware materials is but one element of the interactivity built into this institution's pedagogical approach. Interaction with other students, teaching staff and other experts, who acted as mentors, is achieved through the use of computer-mediated communication (CMC), using a Web-based conferencing system. Students were encouraged to communicate through various electronic conferences, established for specific content areas as well as for informal social interaction *(ibid)*.

Fundamental to online pedagogy is the effective use of asynchronous computer-mediated communication (CMC) for ensuring effective interactivity, which is generally regarded as a key facet of face-to-face teaching and learning (Taylor, 2001:[s.p.]). It is worth noting that there is a qualitative difference between a traditional on-campus tutorial (real-time verbal

communication) and computer conferencing (asynchronous written communication) with the reflective and precise nature of the latter being very different from the spontaneous and less structured nature of oral discourse in either a face-to-face, video or audio teleconference context *(ibid)*. Garrison (1997:5), as cited by Taylor (2000), highlighted that:

> "The reflective and explicit nature of the written word is a disciplined and rigorous form of thinking and communicating…it allowed time for reflection and, thereby, facilitates students making connections amongst ideas and constructing coherent knowledge structures".

2.7.7 The Fifth Generation of Distance Education

The fifth generation of distance education is essentially a derivation of the fourth generation, which aimed to capitalize on the features of the Internet and the Web. Taylor (2001:[s.p.]) called the fifth generation of distance education, the Intelligent Flexible Learning Model. For example, a key consideration for the fifth generation is the use of automated response systems to reduce the variable cost of computer-mediated communication (CMC) which in the fourth generation was quite resource intensive *(ibid)*. Taylor (2001:[s.p.]) said that it was worth noting that prior to the advent of online delivery, variable costs tended to increase or decrease directly (often linearly) with fluctuations in the volume of activity.

Taylor (2001:[s.p.]) concluded that in second generation distance education delivery, the distribution of packages of self-instructional materials (printed study guides, audiotapes, videotapes, etc) is a variable cost, which varied in direct proportion to the number of students enrolled. In contrast, the fifth generation distance education had the potential to decrease significantly the cost associated with providing access to institutional processes and online tuition.

Through the development and implementation of automated courseware production systems, automated pedagogical advice systems, and automated business systems, the fifth generation of distance education has the potential to deliver a quantum leap in economies of scale and associated cost-effectiveness. Further, effective implementation of fifth generation distance education technology is likely not only to transform distance education, but also to transform the experiences of students across the education spectrum (Taylor, 2001:[s.p.]).

In effect, fifth generation distance education is not only less expensive, it also provides students with better quality tuition and more effective pedagogical and administrative support services. The fifth generation is likely to be irresistible to students, education administrators,

policy makers (politicians), and the business community alike – it is also inexorable (Taylor, 2000:[s.p.], 2001:[s.p.]).

2.8 PROBLEMS EXPERIENCED WITH DISTANCE LEARNING IN THE DOD

The common problems associated with many students dropping out of distance learning programmes negatively affect distance learning units in the Department of Defence. These problems in the Department of Defence and their negative effects were also identified by such authors such as Tinto (1993) as cited by Barefoot (2004), Fraser and Nieman (1995), Tait (2004), Woodley (2004), Ashby (2004), Simpson (2004), Yorke (2004), and McGivney (2004), in the following four categories:

2.8.1 Students do not complete their programmes

Many of the Department of Defence students who undertook distance learning opportunities failed to complete their studies. The DOD ETD Project Team (1997a) learned that most of these students were usually not ready to pursue their studies in a distance learning mode of delivery. These students did not submit their assignments and were not committed to writing their final examinations. They often lacked self-esteem, confidence and commitment within the context of group interaction and cooperation.

Tinto (1993) as cited by Barefoot (2004:12) had identified lack of commitment of students to a particular institution and to a personal educational goal. A research project to determine the cause of non-completion of COLET's learning programmes was conducted by Moatlhodi in 2003 (Appendix B). This research was done as a result of some the College of Educational Technology (COLET) students giving preference more to tertiary studies to SANDF programmes. The results revealed that this was due to inadequate provision of facilities and resources from these institutions (Appendix B). The goal commitment, according to Moatlhodi (2003:[s.p.]), was more likely to be associated with lack of academic ability (Tinto, 1975) as cited by Fraser and Nieman (1995:21). Academic ability and preparedness were other student characteristics that influenced students to continue with their studies (Woodley, 2004:51).

2.8.2 Lack of teacher or instructor qualifications

The DOD ETD Project Team reported that, "a shortage of qualified instructors at most training institutions was a general trend" (DOD ETD Project Team Report, 1997a:10). This situation effected negatively on the students as it contributed to their de-motivation. According to the DOD ETD Project Team, very few institutions had more than two members

qualified at the "Optech 2"[7] level (*ibid*). Thus, these institutions were forced to use "unqualified" instructors and could not release these instructors to obtain the necessary ETD qualifications. Willis (1993:36) maintained that the success of any distance education effort rests squarely on the shoulders of the qualified instructors. This implies the appropriate and adequate understanding and balancing of the intricacies of distance learning by the instructors. According to Tait (2004:103), the instructor must address issues of distance learning by creating a welcoming environment and trying to find out about the students' motivation and level of prior learning as much as possible during the initial contact. The instructor or instructor qualification should also include such skills training and/orientation. Diversity in types of instructors should be used as a teaching and learning instrument to bring about the needed practice (Kelchtermans, 2010:526).

2.8.3 Poorly prepared materials

Largely, Department of Defence courses lacked quality and credibility (DOD ETD Project Team report, 1997a). The view of the Diplomacy, Intelligence, Defence and Trade and Industry Education Training Authority (DIDTETA[8]), reported in the Pretoria News by Hosken (2004:5), that, "internal training offered by the SANDF was not worth anything." Literally, this meant that none of the courses offered by the SANDF were recognised either nationally or internationally. The DOD ETD Project Team (1997a) learnt that very few SANDF courses and qualifications enjoyed accreditation in the private sector. By November 2004, only one Department of Defence ETD institution was fully accredited, 11 were provisionally accredited, the applications of 13 institutions were pending and approximately 25 had not applied. The programmes and materials designed and developed in the Department of Defence were qualification-based instead of being competency and outcome-based. Courses are used as a means of evaluating personnel for promotional purposes.

This practice did not inculcate the right attitude to learning. Asmal (2004) cited by Moll, Welch and Naidoo, (2004:[s.p.]) summed up the above as the, "perils of distance education". that resulted in little regard for the quality of learning and outputs, poor quality of the materials bear no relevance to skills and human resource development and inappropriate approaches to curriculum design, development and delivery. Kember (1989:199-209) cited by Fraser and Nieman (1995:22) listed academic environment and integration as one of several variables influencing the drop-out process in distance learning. He says that the

[7] "Optech 2" level was the programme to prepare instructors at COLET; it has now been replaced by Occupational Directed ETDP Qualifications.
[8] DIDTETA is one of the 25 sector education training authorities (SETA) responsible for the DOD.

academic environment embraced aspects such as study materials and academic assistance. Meanwhile, the National Association of Distance Education Organisations of South Africa (NADEOSA, 1996) had recognised as quality criteria programmes development that are flexible and designed with national needs as well as the needs of students (p.16), the course curriculum with aims and learning outcomes appropriate to the level of study (p.19) and course materials that supported the aims and learning outcomes (p.20).

2.8.4 Lack of student support

It has been constantly argued that student support remains the backbone of student success in distance learning. The lack of student support in the DOD ETD System manifested itself in a number of ways. The student's direct supervisor at his or her own unit and the facilitator at the training unit normally did not take co-responsibility in assisting the student to develop to his or her full potential. On the one hand, the student is expected to do the full complement of unit work during the day and his/her own studies after hours (Van der Walt, 2004:16). Often study hours and related resources were often not provided. On the other hand, facilitators were under-prepared for their roles (Malan, 2004:5) such as mentoring, coaching, tutoring and creating an environment to enhance learning. The DOD ETD Project Team noted with concern the weaknesses in the DOD ETD environment, the lack of training for trainers, no focus on Research and Development and lack of co-ordination between ETD institutions (DOD ETD Project Team Report, 1997a:17). McGivney (2004:41-42) has realised that the lack of support in the form of teaching staff not getting to know their students and showing little interest in their work contributes to non-completion of a programme or module.

Yorke (2004:26) noted that a sense of belonging had negative implications for a distant student's persistence, especially when the student was remote from the provider. Students wanted to feel that they were members of an academic community. Kember *et al.* (2001) cited by Yorke (2004:26), said that sense of belonging can be developed in distant learning institutions in which attendance and some contact sessions was the norm (Yorke, 2004:26). According to Barefoot (2003) cited by Yorke (2004:26-27), mutual support was relatively easy to achieve in this respect. Simpson (2004:80) maintained that contact with students in any student support system was very important.

2.9 POSSIBLE APPROACHES TOWARDS SOLVING THE DISTANCE LEARNING PROBLEMS IN THE DOD

The above-mentioned problems could be addressed from the following viewpoints:

2.9.1 Adopt student-centred or self-directed approach

In order to overcome resistance to learning, adults had to be motivated to want to learn and to get them in various settings to learn to become active inquirers (Knowles, 1970:42). How do we get our DOD students in distance learning to be self-directed students? We certainly do not have to throw our students into the unfamiliar waters of self-directed learning and hope that they can swim. This could be a new experience for many students, and they need some preparation for it. In their Personal Responsibility Orientation Model, Brockett and Hiemstra (1991), cited in Merriam and Caffarella (1999:298) defined self-directed learning as comprising two dimensions, namely, instructional processes (self-directed learning) and personality characteristics of the individual student (student self-direction). In the first dimension, instructional processes, students assumed primary responsibility for planning, implementing, and evaluating their learning experiences.

In the second dimension, personality characteristics of individual students, centred on a student's desire or preference for assuming responsibility for learning. The notion of personal responsibility, which they defined as "individuals assuming ownership for their own thoughts and actions," is the point of departure for understanding concepts of self-directedness and student-centeredness.

2.9.2 Develop student support service system

Student support remains the backbone of distance learning delivery. It is reflected in the wide range of support strategies employed by providers to assist distance students in completing their studies. Despite general recognition of the importance of student support, there is no widely accepted definition of the concept of student support. There is a tendency to use the term broadly, so that it meant different things and applicable to different people depending on their circumstances. Student support would often be defined in relation to specific contexts and experiences.

According to UNISA's (SAIDE, 1999:14) draft report on integrated student support:

> "Student support encompassed the entire range of methods and strategies employed in the presentation and delivery of courses aimed at assisting and enabling students to comprehend fully, assimilate and master the skills and knowledge needed to achieve success in their studies".

Akinade (1998:2) puts forward a similar understanding of student support, which he defined as, "…systems or procedures that are purposefully created and effectively utilised by a distance learning institution to support and or facilitate teaching and learning".

2.9.3 Thorough instructional system design

The systematic designing of an instructional system is fundamental of any successful learning programme. Instructional design impacts on appropriate preparation of study and learning materials. One of the outcomes of ETD is competence in the workplace. In military terms, that means competence in the operation and management of the combat and support systems of the Department of Defence. According to the ETD Project Team, to attain this goal, learning activities should be directed at integrating theory, practice and the work situation (DOD ETD Project Team Report, 1997b).

The DOD ETD Project Team adopted the ETD process containing the four main sub-processes (Figure 2.3) that facilitated the conversion of student needs to the outcome of competence in the workplace. The first sub-process of determination of the ETD needs is student driven and competency focussed. The development of ETD opportunities as the second sub-process is done through the scientific educational application of problem-solving process, and formed the core activity of the sub-process. The third sub-process is the actual presentation of the learning opportunity and comprises innovative elements based on the correct diagnosis, the learning plan, the facilitation plan, and the evaluation plan. The final sub-process is the evaluation of the ETD system, where the emphasis is on the ability of measuring the transfer of learning in the workplace.

2.9.3.1 The ETD Process as DOD instructional system design

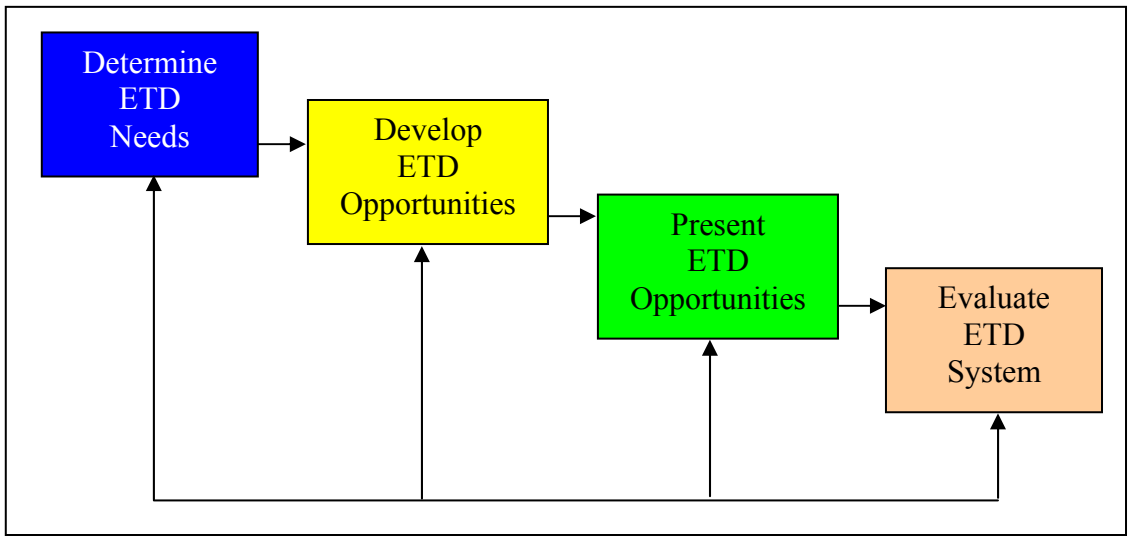

Figure 2.3: The DOD ETD process (as institutionalised by the DOD ETD Project Team, 1997)

Therefore, the organisation of distance learning must also involve planning and organising the curriculum and its course contents which includes such aspects as the analysis of target audiences, their needs analysis, experiences, educational and cultural constructs, appropriate learning material preparation and development, outcomes formulation, assessment criteria, evaluation methods, methods and media selection (use of technology) and support structures.

2.9.4 Formulation of a distance learning policy

Hũlsmann (2000), cited by Welch *et al.* (2004:13), identified a clear policy as one of the three conditions for efficient and effective provision of distance education. An appropriate institutional culture and the consideration of costs could be regarded as being the other conditions for efficient and effective provision of distance learning. In its document "Criteria for Quality Distance Education in South Africa – 2003," the National Association of Distance Education Organisation of South Africa (NADEOSA, 2003) identified Policy and Planning as one of the quality criteria and critical success factors for distance education provision in South Africa.

Seyoum (2003:9) reported that:

> "Despite the absence of clearly defined policy … a glimmer of hope could be visualized if things were turned around in the secondary level and the Instructors' Training distance education programmes in Ethiopia".

He suggested that the formulation and implementation of a clearly articulated distance learning policy was one of the steps to be addressed by Ethiopia's Distance Education Panel. Viljoen (1999:[s.p.]) developed and proposed a distance learning model (Figure 2.4) to be utilised by the SANDF. It is only the Military Academy that had attempted to utilise the model. The fact that the model is not widely utilised, is because no distance learning policy existed in the SANDF and Department of Defence. This model is comprehensive and appropriate for the SANDF and Department of Defence as it covered or accommodated the most important aspects of distance learning. One such factor is that provided in the environment that promoted learning. Policies play a crucial role in student performance. They tend to emphasise the role of the distance learning institution, its ethos and inclination to teaching and learning and support mechanism as significant variables in student performance (Osman & Castle, 2006:515).

According to this model, student support should not only take place in the learning and instructional environments but also from a technical and administrative point of view. This model also embraced the three main variables of instructional dialogue, programme structure and student autonomy as explained by Moore's Transactional Distance theory. It suffices to say that any distance learning policy should be formulated in such a way that it encompasses most if not every aspect concerning distance learning delivery. These include aspects such as accreditation, administration and management, curriculum design, course production, assessment and evaluation, quality assurance, student support and use of technology.

2.9.4.1 The distance learning model for the Department of Defence

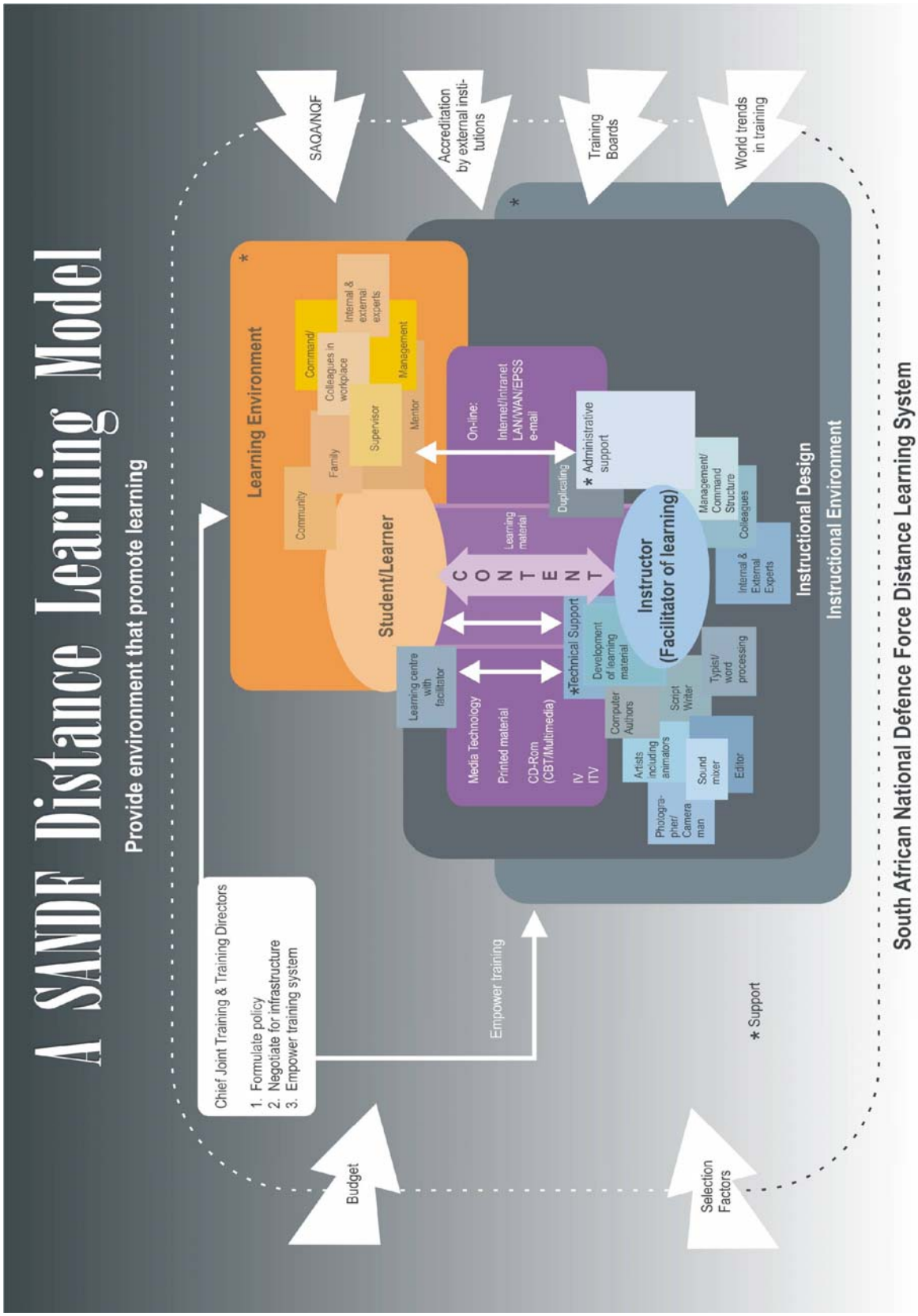

Figure 2.4: A SANDF distance learning model as designed by Viljoen (1999)

2.10 CONCLUSION

This chapter discussed the education and training system in the Department of Defence in general and distance education in particular. It began by discussing the mandate given to the Department of Defence according to the Constitution of the Republic of South Africa. The organizations and structures of South African defence system and their responsibilities to the entire ETD system were discussed whereby the needs for ETD in the Department of Defence were highlighted. The chapter also discussed why the Department of Defence prefers to use the term "distance education" or "distance learning" as opposed to other terms often used to explain this mode of instruction and delivery.

The chapter also discussed the level of technology utilized in distance education compatible with recorded "generations" of distance education. The chapter concluded by highlighting some of the problems encountered in distance learning. The next chapter analyses the theory and approach adopted by the Department of Defence and SANDF in their instructional design and development.

CHAPTER 3

DESIGN AND DEVELOPMENT OF DISTANCE LEARNING PROGRAMMES AND MATERIALS IN THE DEPARTMENT OF DEFENCE

3.1. INTRODUCTION

At the heart of this research is the analysis of the development of curriculum and instructional design in teaching and learning as it is believed to be changing dynamically. Harrison and Bergen (2000:57) observed that this change is typically taking place in the area of distance learning. In this analysis, the theories and approaches of curriculum development and instructional design are the most crucial. Therefore, this chapter is aimed at analysing the theory and approach adopted by the DOD/SANDF in their curriculum development and instructional design. The Department of Defence promulgated a policy on how the SANDF must design its instructional programmes for both contact and distance learning settings. The DOD ETD Project Team adopted the 'ETD Process' containing the four main sub-processes (Figure 3.1) that facilitated the conversion of student needs to the outcome of competence in the workplace.

According to the Department of Defence Education (DOD), the Training and Development (ETD) Process is a generic, academically responsible approach to progress systematically to a desired output of creating opportunities for learning (DOD ETD Project Team Report, 1997a:41). The ETD is viewed as an enabling mechanism that provides ETD opportunities (e.g. courses, seminars, training exercises, wargaming, research findings, tertiary education, etc) throughout the Department of Defence. Thus, the four main sub-processes were adopted to facilitate the conversion of client needs to the outcome of competence in the workplace.

3.1.1 The use of instructional design in the DOD/SANDF

The Department of Defence uses the terms 'instructional programme design or development', 'learning programme design or development', 'curriculum design or development' interchangeably to explain the same phenomenon. According to Rose (2004:3) instructional designers who refer to curriculum work tend to enforce its difference from their own endeavors …This chapter discusses the processes and/or guidelines employed by the DOD/SANDF ETD structures, organizations and learning institutions (both distance learning and face-to-face) to design learning programmes, learning materials and assessment methods. These guidelines are largely contained in the DOD ETD policy, regulatory framework or instructional guideline documents. These documents prescribe the way teaching and learning is to take place and to be structured. This also includes the development of the learning materials and assessment methods.

The DOD curriculum policy document stated that the curriculum is the document that forms the core from which the ETD Process is driven. All curricula in use in the DOD collectively represent the consolidation of the ETD system that is compiled according to client specification. The curricula reflect and set the standards by which the quality of the output ETD system is to be measured (DOD Curriculum Policy Document). For this reason curricula should contain the same elements, which are derived from an instructional design report (*ibid*). According to the DOD curriculum policy document "all training in the DOD is regulated by the SAQA Act No. 58 of 1995 as well as the Skills Development Act No. 97 of 1998 which contained certain imperatives to which curricula specifically had to adhere to."

3.2 THE DOD DEFINITION OF A CURRICULUM

The definitions for a curriculum vary. According to the DOD curriculum policy document, "a description of the purpose of what a curriculum 'has to do with', as defined by Bellis, was given by SAQA". It involves the following:

a. Determining the purpose and values of learning.
b. Analysing the needs and nature of the students.
c. Deciding on the outcomes of learning objectives[9].
d. Selecting the content, the subject matter that will support the achieving of the outcomes.
e. Deciding on the activities, the methods and media for teaching/training and facilitating the transfer of learning.
f. Planning how assessment will be done.
g. Planning how the overall effectiveness of the delivery of the curriculum will be evaluated.

From this description, it is evident that a curriculum is based on a standard setting process (a and c), includes learning programmes,[10] development (b, d, e and f) and concludes with quality assurance (g). According to the DOD policy document, this concurs with the DOD ETD Process: determine ETD needs (analysis), develop ETD opportunities (design), present ETD opportunities (deliver), and evaluate the ETD system (assess). All these elements are stated in an instructional design report that forms the foundation of a curriculum. According to Kelly (2004:15) Tyler (1949:1) is usually seen as the founding fathers of the 'aims-and-objectives' model of curriculum planning.

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[9] According to the DOD Curriculum Design policy document the terms 'objectives' and 'outcomes' are used interchangeably, but the word 'objectives' is used because it is better known in the DOD.
[10] According the policy document, a learning programme means the sequence of activities, which are associated with the curriculum that leads to the achievement of a qualification or part qualification.

3.3 PURPOSE OF A CURRICULUM

Most training is usually based on a systems approach. This refers mostly to rational modes of training and instructional designs. Instructional design is the systematic planning and development of instruction (Ruffini, 2000:58). Outcomes-based Education and Training is an example of such systems approach. The purpose of a curriculum is to provide comprehensive information in one document from which individuals are involved in the teaching and learning system. These include instructional designers, developers, facilitators, assessors, students and quality assurers. These individuals are charged to achieve the same understanding of the outcomes stated and to enhance learning (Blank & Russell, 2000:47). Curriculum is therefore the pivotal system to the ETD Process. Hence, according to Mager (1984:3), an objective is a description of a performance you want learners to be able to exhibit before you consider them competent.

3.4 IMPORTANCE OF ALIGNING THE CURRICULUM WITH THE NQF

The SAQA Act regulates all education and training at national level. This Act is applicable to all state departments as well as to the private sector. The DOD is one of the role players responsible for the achievement of national goals in providing skills development programmes and studentships as part of ETD opportunities for its members and employees. These opportunities have to be in accordance with the national outcomes-based approach and are regulated by the Skills Development Act. All learning programmes must be outcomes-based in order for them to be accredited**.** The revision of curricula within Arms of Services must be planned and phased-in to reach this target.

The DOD curriculum policy document state that the methodology proposed will be in line with national qualifications and standards and thus adhere to NQF principles. This is important for the accreditation of providers and assessors, and to ensure consistency within the Department of Defence and national Education, Training and Development (ETD) system. The South African Qualifications Authority (SAQA) captures the unit standard or qualification that had been suggested and/or approved by the Department of Defence. The curriculum contains elements that form part of a unit standard. It is to the advantage of the DOD to include all these aspects, or as many as possible, in its curricula. This will bring about consistency of the Department of Defence ETD system with national ETD system. This practice also facilitates the writing of unit standards that did not exist before.

3.5 DIFFERENT APPLICATIONS OF CURRICULA

Curricula form the basis for the following:

a. The development, delivery and assessment of the learning event plan[11] from which learning facilitation takes place.
b. All assessment and evaluation[12] instruments and methods must be directly linked to outcomes. The curriculum contains the assessment approach, methodology used and assessment criteria in enough detail to ensure consistent execution thereof.
c. The curriculum also encourages the executed of Recognition of Prior Learning (RPL).
d. The negotiation for outsourcing. It ensured that the outsourced provider delivered the opportunity according to the client need. It is impossible to ensure quality in the ETD system if the curriculum is not consistent in design and layout and according to the client specification. It could form part of the client agreement that the outsourced provider would develop a curriculum from which the learning programme would be delivered.

3.6 THE PLACE OF INSTRUCTIONAL DESIGN IN A CURRICULUM

Curriculum and instructional design and development are normally synonymous. The broader concept is curriculum design that will eventually lead to the development of a specific curriculum. Instructional design is subjacent to curriculum design. The curriculum prescribes the content and outcomes, and instructional design aims at exploring the ways teaching and learning have to be operationalised to achieve the outcomes. An instructional design process is the scientific base upon which a curriculum is designed. Each instructional design report is formulated according to a selected instructional design model. These models vary according to the application for which they are developed. (As an example, the models that can be selected for distance learning vary from the models that can be selected for the design of Competency- based modular Training) (DOD Policy Document [undated]). There are basic components in each instructional design model namely: design, development, delivery and evaluation. These correlate with the DOD ETD Process. Within these parameters, as part of the steps in the model, it is development in producing the required curriculum.

The curriculum must be designed in the sequence prescribed by the selected instructional design model. The only definite requirement stated by SAQA is that all learning programmes have to be outcomes based. It therefore leads the instructional designer to choose a model

[11] According to the policy document a learning event plan integrates all the outcomes that are included in the learning programme and is therefore an integrated assessment tool.
[12] Assessment and evaluation must adhere to policies and guidelines related to assessment and evaluation for the Services (Policy Document).

that would result in an outcomes-based learning programme. A curriculum could be designed after a unit standard[13] had been written or a unit standard could be generated after outcomes-based curricula had been developed. A complete DOD ETD Process is generally a long and comprehensive document that could make it difficult to be presented here; therefore, a summarized version (as initially provided in Figure 2.3, p49) is presented in Figure 3.5, p59.

3.6.1 The DOD ETD Process Model

1. **DETERMINE ETD NEED**
   - Determine client's competency requirements.
   - Determine current competence of student body.
   - Define client's ETD needs.

2. **DEVELOP ETD OPPORTUNITIES**
   - Undertake ETD appreciation.
   - Acquire ETD capability.

3. **PRESENT ETD OPPORTUNITIES**
   - Validate student body candidates.
   - Conduct ETD activities.
   - Assess learning.
   - Conclude administration.

4. **EVALUATE ETD SYSTEM**
   - Validate ETD system.
   - Take corrective action and reinforce practice.
   - Evaluate, account and report

Figure 3.1: A summarised version of the DOD ETD Process (as institutionalised by the DOD ETD Project Team, 1997) [Adopted from the Follow-up Report, 1997]

3.7 THE DOD ETD PROCESS

The following, as briefly discussed in chapter two, is yet again a summarized version of the output description of the DOD ETD Process as stipulated in the First Report of the DOD ETD Project Team in 1997.

3.7.1 Determine ETD needs

In this process, the client's requirement for competence and associated role description are received and translated into ETD needs. Competency profiles of the student body originate from analysing client competency requirements and are used to determine the competency gaps that are rectified through ETD. These profiles deal mainly with the required knowledge, skills, attitude and characteristics of the student body and take the form of detailed

[13] A unit standard that had specific outcomes was found in a qualification and reflected the nature of the learning programme.

documented description of the required student body competencies. This will also serve as the basis for the learning plan, assist in the determining of resource requirements, interact with other credible ETD institutions and give guidance to other DOD processes. This leads to an ETD contract with the client and serves as input and control for other ETD Processes.

3.7.2 Develop ETD opportunities

ETD opportunities for specifications originate from client contracts. This output enables the student body to become competent and deals mainly with the systematic provisioning of ETD opportunities contained in the curricula. This would guide the ETD master plan, determine resource requirements and capabilities and ensure close interaction with credible ETD institutions, leading to associated accreditation. These opportunities are scheduled and effectively marketed to ensure optimal utilization by the student body.

3.7.3 Present ETD opportunities

This process entails the presentation of the designed ETD opportunities and the evaluation of its effectiveness and efficiency by formally assessing student body performance through formative and summative evaluation, and then concluding the prescribed ETD administrative actions. It deals with judging the present competence of the student body against the entry requirements of the ETD opportunity to be presented. The sub-process then prepares the validated student body to make full use of the opportunity by creating pre-conditions for learning, presenting specific learning activities in accordance with the facilitation plan, performing a series of evaluations in accordance with the evaluation plan to confirm progress made, and whether learning took place. This sub-process concludes with the associated administrative actions, which also include certification, accreditation and reports.

3.7.4 Evaluate the ETD system

In order to measure the outcome of ETD opportunities [transfer of learning], the improvement in the competence [quality of performance] of the student body who participated in the ETD opportunity, it is measured in the workplace against the client's specification. The result is presented in the format of an audit report. Re-enforcement or redesign of any component of the ETD system, for continuous improvement, results from this. External validation is not included in this process.

3.8 EVALUATING THE DOD ETD SYSTEM

According to the First Report of the DOD ETD Project Team in 1997, the ETD Process is a generic, academically responsible approach to progress systematically to a desired output of

creating opportunities for learning. The aim of the output is to reach the desired ETD outcome of competence in the workplace; and in this case, competence in the operating and management of the combat and support systems of the DOD. Learning activities should therefore strive for the integration of theory, practice and the work performance. Thus, the ETD Process prescribes that an assessment be carried out in order to determine if the desired output has been achieved. According to Wolfson and Lancaster (1999, cited by Meyer *et al.*, 2003:77):

> "Both assessment and evaluation are required to determine if learning had been translated into work performance and therefore if it was making an impact on the achievement of the company's strategic objectives and thus the bottom line".

Evaluation revolves around the process of making a value assessment on the data gathered. Evaluation involves judging the worth or value of planned learning experiences. Evaluation refers to the way in which a course, study material, projects or systems are examined to determine the value thereof (Mabaso *et al.*, 2001:118; Rothwell & Sredl, 1992:411). Evaluation can take place without measurement, but if we want to make sound judgements about an organisational operation, then hard data is necessary.

Assessment is done to determine the level of improvement and refers to two separate contexts. Firstly, assessment refers to the way students' abilities and individual performance is measured. According to Meyer (2003:80), assessment is the process of identifying what an individual knows and can do. In this context, pre- and post-assessment of competence is measured. Secondly, assessment refers to the assessment of training, i.e., to determine the impact of a training programme. The impact of a training programme is determined, similar to that of the individual. A pre- and post-assessment of competence of the individual is done and the impact of the training programme is determined.

As alluded to before, the four main sub-processes (ETD Process) were adopted to facilitate the conversion of client needs to the outcome of competence in the workplace. All the components and sub-processes of the ETD Process formed part of an ETD system. In addition, the ETD system formed part of the total DOD organizational system. The policy document stated that any one of the elements has an impact on the effectiveness of the DOD ETD system. It is necessary therefore to evaluate a component and the sub-processes as part of a sub-system and, inter alia, a system. Thus, the purpose of such an evaluation is to determine the effectiveness of the system and the impact of the sub-system on the total system; hence the application of formative and summative evaluations.

3.8.1 Formative evaluation

Formative evaluation entailed the constant evaluation or monitoring during the learning-programme design, development, and delivery processes. The learning programme is evaluated to:

- Determine the extent to which the course is effective (that is, if the learning is taking place during its use) in order to make immediate changes if required,
- Ensure that the course met its objectives, and
- Make active use of received feedback.

The following are examples of formative evaluations:

- The examination of all instructional materials in draft form.
- The evaluation of a learning programme after it had been piloted.

The main aim of formative evaluation is to give feedback that contributes to changes that would be of immediate value to the student and/or the programme. Errors were rectified and gaps filled immediately to ensure that the student benefits from the improvements as soon as possible.

3.8.2 Summative evaluation

Summative evaluation is done to determine the value of the present materials for a defined target group or a particular setting. Briel (2001:16) summarizes summative evaluation as follows: “Summative evaluation is largely what happens in level 4 of the Kirkpatrick model. It is the final summary of the evaluation of the learning programme. It always happened at the end: end of a learning programme, or end of a semester, or quarterly or at the end of a three-year degree. It concluded results, judges the worth of a programme: whether the outcomes were achieved and if it was worthy of achieving.”

The DOD/SANDF uses the following classroom evaluation or assessment approaches in its test or examination construction or application:

- Quizzes.
- Diagnostic tests.
- True/false questions.
- Fill-the-gap (or completion of a sentence or paragraph).
- Multiple-choice questions.
- Match the right answer from one to the other type of questions.

- Choose the 'correct' or 'best' answer.
- Essay (use of the Conventions of Service Writing - CSW[14])

It is also common practice in the DOD/SANDF that a standard "mark sheet' for a particular examination and/or test is utilized. The implication of this practice is that an answer given by a leaner that did not correspond to that on the mark sheet is deemed incorrect by all means.

3.9 CONCLUSION

This chapter discussed the development of instructional design (ID) in the form of curriculum design and development in the DOD. It analysed the theory and approach the DOD adopted in instructional design and development. The chapter defined ID and how the DOD used the terms instructional design and curriculum interchangeably. The DOD promulgated a policy on how the SANDF must design its instructional programmes. This is applicable to face-to-face and distance learning settings. However, the policy document stated that the ID models selected would vary according to a particular delivery mode. It was pointed out that the DOD ETD Project Team adopted the ETD Process containing the four main sub-processes for the sole purpose of ID and/or curriculum development. The chapter concluded by stating how the DOD utilized its two main evaluation methods, the formative and summative assessments, to evaluate its programmes and assess the students in face-to-face settings and distance learning mode of delivery and the implications thereof.

[14] The CSW is a standard way (pre-set standard) of writing in the SANDF; this includes the security guarantee or classification (e.g. top secret, secret, confidential, or restricted) in every military related writing or document.

CHAPTER 4

THE CONCEPT OF DISTANCE LEARNING IN THE MILITARY AND IN OTHER PUBLIC DISTANCE LEARNING ENVIRONMENTS

4.1. INTRODUCTION

This chapter provides a critique of the practices of distance learning in the military and other settings with the hope to relate the present study to the ongoing dialogue in the literature. In addition, it is used for furnishing a framework for comparing results of this study to other studies and is helpful in interpreting and making sense of the present findings (Cresswell, 1994:37). Cresswell (1994:25) cautions that only key results and major conclusions related to the study should be reviewed. Leedy and Ormrod (2001:77) suggest that identifying keywords and phrases in the study problem/s and/or objectives is often the best way to discus literature review in a study.

The aim of the study is to determine what the requirements are for the design of DE programmes with the aim of identifying the nature of discipline or dialogue and how drop out and student support manifest themselves in a distance learning environment. In a nutshell this study is concerned with identifying how distance learning programmes in the SANDF are designed and how student support manifested itself in the wake of poor performance and eventual drop out of DOD students from distance learning programmes. Hence, from this purpose, the following keywords have been identified from the objectives of the study: design of distance learning quality programmes; adherence to discipline and/or dialogue in the design of distance learning programmes; drop out and failure in distance learning programmes in the DOD; distance teaching and learning characteristics of AoSs; structure of distance learning in the SANDF; unsatisfactory results with distance education; the contribution of students, teaching and learning support; the impact of drop out and failure; student and instructor preparation for distance education; and suggestions for improvement. These were the areas the study attempted to review in the literature. The literature review in this study is arranged into suitable topics or sub-headings.

4.1.1 Experiences of e-learning in the military

In 2005 Crome and Charles (Crome & Charles, 2005:[s.p.])undertook a study to explore the perceptions and experiences of some of the first Army officers studying Military Knowledge 2 (MK 2), the largest scale e-learning course implemented in the United Kingdom (UK) Defence Force thus far. They assumed that the perceptions of those involved in MK would

therefore shape the future of e-learning across the Defence Force, not only in terms of style, format and quality of the content but also in the manner that MK was integrated into workplace learning. The study analysed the impact of e-learning in the British Army. The UK's Defence Training Review (DTR) (2001), cited by Crome and Charles (2005:[s.p.]), defined e-learning as:

> "The collective term that encompassed web-based structured learning using computer and communications technologies delivered anywhere and at any time it was needed or desired".

However, the authors believed 'true' e-learning exhibits the 5 features identified in Figure 4.1 (Crome & Swift, 2004 cited in Crome & Charles, 2005:[s.p.]). It was the author's intention to determine current attitudes, general trends and significant user issues amongst MK 2 students based on *Connectivity, Student Management, Interactivity* and general *Perceptions* (Crome & Charles, 2005:[s.p.]). A structured questionnaire, consisting of 29 questions, subdivided into 4 key categories, connectivity, management interactivity and general perceptions, was used as an instrument for data collection. The MK helpdesk provided the authors with current statistics of student enrolments, mentor enrolments, CD requests and helpdesk enquiries. From the material provided, 10 students were identified who had completed at least one module of MK 2 and were targeted with an in-depth telephone interview by the authors.

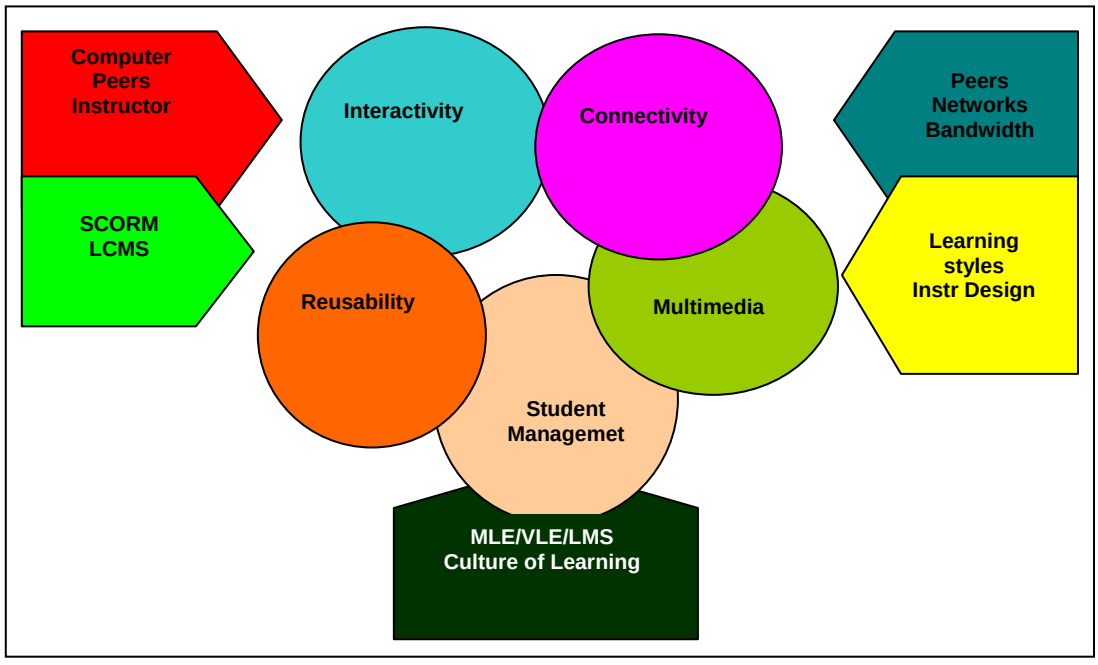

Figure 4.1: What is e-learning? (Adapted from Crome & Swift, 2004 as cited by Crome & Charles, 2005:[s.p.]).

To ensure reliability, exact wording was used in all questions and results were recorded verbatim. To gain a general understanding of the key issues, the broadest possible cross-section of interviewees was targeted, in terms of age, gender, and field of employment, experience and location. Interviewees were, in all cases, assured that their identities would

remain anonymous. To achieve triangulation of the information gathered via the interviews, findings were cross-referenced with comments provided by the Chain of Command (via official correspondence and Post Activity Reports) and helpdesk statistics/observation *(ibid)*. The findings of their investigation based on these features are discussed as follows:

a. Connectivity. Access remained limited. Army-provided facilities were limited. It was difficult to book facilities in advance. Home study was not necessary the ideal place for the ethos of MK 2. Accessing the content, either due to registration problems or the requirement for plug-ins, remained problematic. The figures were supported by the helpdesk statistics, with 33% of recorded calls on this issue. Although officers did achieve access, 80% said that they thought ICT access across Defence was insufficient to access MK 2.

b. Management of Learning. The Chain of Command provided little or no support for, or engagement in, the MK 2 requirement, with little or no allowance made to reduce busy workloads or extend deadlines. While most students took control of their MK learning rather than wait for direction, some negotiated their workloads during the day.

c. Interactivity. The findings indicated that those students working with mentors (either allocated or sought out) welcomed their support though admitted that the mentors were generally reactive rather than proactive, tending not to organize activities, but respond to specific requests for help instead. When questioned about collaboration with other MK students, 7 out of 10 interviewees said that they were communicating with their MK 2 student peers though this was on an informal basis.

d. Perception. The student support and student's experience with distance learning of any kind surrounded questions on perceptions. The increased pressure of work led 5 out of 7 students to abandon their learning plan, (normally provided in the study guide) and had to be helped to create by the helpdesk. Students were largely aware of important news and tips for MK provided via the MK Website, however, only 3 students said that they used this regularly. Overall views of E-learning amongst interviewees were mixed. Eight interviewees stated that face-to-face instruction remained their preferred means of delivery, particularly citing the lack of opportunity to discuss issues with peers and an instructor as the major barrier. Thus, it was the lack of mentoring provision, connectivity problems and the difficulties surrounding time to study, which emerged as the key barriers to completion. The next section reports on the study about the needs assessment in designing military programmes.

4.1.2 Needs assessment in designing military programmes

Nash (2004a;[s.p.]) observed that when it comes to online learning, young enlisted active duty military personnel were a tremendously misunderstood population. Suffice to say that administrators and/or practitioners of military distance education do very little in trying to understand their students. She went on to say that online course developers and administrators failed to appreciate the students' skill-sets, military training, educational background, cultural diversity, work schedules, and the nature of their access to the Internet. These distance education practitioners fail to do an assessment of what the military students are capable and not capable to do with regards to distance education. The high rate of failure was as the result of a huge disconnection between reality and academia (Nash, 2004a;[s.p.]). Students fail the distance learning programmes because, sometimes, proper assessment of their learning profiles before, during and after the programme was not done. Many online programmes were out of touch with the realities of today's military service. Instructional designers who followed standard, one-size-fits-all, best practices without benefit of needs assessments or audience analysis produce courses that result to high rate of students' failure. Information technology departments promoted learning management software (LMS) solutions and integrated online services (course registration, elaborate customizable portals, libraries featuring online reserve documents averaging 10 megabytes), which were not at all aligned with the technical realities of the majority of their users *(ibid)*. It can be imagined here that these users had not or were not at all been oriented or trained on using the LMS system before totally or completely embarking on it.

Nash (2004a;[s.p.]) listed the following elements as critical and need to be kept in mind when designing programs for military personnel. These were applicable to members who were either deployed or in the field. The institution requires investing time and effort into conducting needs assessments, computer utilization studies, and audience analysis, she added:

a. Access was not constant.
b. Highly computer literate.
c. Instant messaging (IM) and games-adept.
d. Internet explorer-rejecting.
e. Peer-to-peer file-sharing habits.
f. Skills sets gained from military schools and training.
g. Writing deficiencies.
h. Mathematically challenged.
i. Standardised testing problems *(ibid)*.

These elements need to be constantly assessed, corrected, and their relevancy and validity updated.

4.1.3 Reasons for failure in military on-line courses

During the same year, Nash (2004b;[s.p.]) listed the following reasons for failure in an online course delivery to the military and emphasized that it was important to realize that to provide effective e-learning for military involved a commitment to financial, intellectual and human resources:

a. Failure to communicate with students.
b. Poorly-defined learning outcomes.
c. Badly-designed instructional tasks.
d. Inaccessible or late course materials.
e. Faculty out of loop – cannot perform basic tasks.
f. Too many intermediaries in support services
g. Courses not aligned with needs of students.
h. Failure to provide writing support.
i. Inappropriate assessment strategies.
j. Learning management system issues.
k. Outdated or irrelevant content / badly situated learning.
l. Rigid deadlines and policies, counterproductive administrative policies.
m. No redundancy in case of component breakdown.
n. Hard-to-access library resources.
o. War and post-war stress issues.

Some of the above-mentioned elements are the basic tenets in the distance education programme especially the student support dimension of it. Two-way communication which results to constructive dialogue is one of the basic principles in a distance education setting; keeping in mind that distance between the student, the teacher and the institution. Learning outcomes should be clearly stated so as to be understood by all. These should be transcribed in the well-defined and -designed distance learning materials and tasks. Thus, it could be said that the needs of the students and their support had been fulfilled.

4.1.4 Student autonomy in the military

According to Nash (2005a;[s.p]), military success depends on student autonomy. The key to success is not necessarily the high-tech presentations in web-based formats. Nash *(ibid.)* said that the distance student – in a 100% distance course or a hybrid – succeeded when a student can exercise autonomy. By autonomy she meant:

a. Options for student self-direction.
b. Leaner activities could be done independently.
c. Students have the opportunity to be self-starters *(ibid.)*.

Students should be able to do things themselves with little or no supervision. Student autonomy also meant that students should have a feeling and passion that they can be able do or conduct learning activities by themselves; that is, with confidence and feel motivated at all times. It also goes without saying that students should not be afraid of new learning, instead embrace it. According to Nash (*ibid.*), the following conditions must be satisfied in order for student autonomy to be at all possible:

a. Students must be able to use technology.
b. The learning management system must be understandable, and there should be help that is available on demand.
c. Instructions for administrative tasks should be easy to find and use (e.g. online registration, online payment, etc.)
d. The order of tasks, instructional activities, rubrics, etc., should be organized in a way that is easy to find and follow.
e. The course objectives should be flexible enough to allow the student to adapt them and make connections between one's own goals and course content and objectives.
f. The course should be designed in such a way that one could take course content, organize it, and use it as a point of departure for generalizations and meta-cognitive tasks.
g. The course design should be developed in a way that when students identify 'holes in scaffolding', they can go back and fill in the gaps.

Student autonomy should lead students to discover issues themselves. But as Knowles (1970) suggested, students have to be prepared to be able to apply new knowledge. For example as Nash (2005a:[s.p.]) proposes, students have to be taught how to use technology; they have to be shown how to use the library appropriately, be trained on analytical skills to be able to interpret course objectives and understand the course content.

4.1.5 Student and instructor relationship in the military

Nash wrote an article (Nash, 2005b:[s.p.]) on the relationship between an instructor and a distance learning student. She said that instructor-training institutions did not prepare instructors to be able to listen to or appreciate another person's vocabulary. They also did not prepare instructors in any way to relate to students. This was not the fault of the courses which were actually good. As observed by Schifter (2002:13), student-instructor interaction

is the key to a successful distance learning programme. Student and instructor interaction would increase the interest of both to participate. Distance education instructors should be adequately prepared to be able to communicate with students in distance learning settings. Nash (2005b:[s.p.]) described the Academy as:

> "An elitist, formless, faceless, normative body that exacted absolute conformity from anyone who dared aspire to its ranks. It required absolute obeisance, a bended knee to the idea that anyone who might question it, was ignorant".

The military is autocratic by its nature; as much as other opinions are not asked nor allowed; decisions taken are normally not supposed to be questioned by subordinates. This creates a vast gap between the decision-makers and their subordinates. Thus, even in military learning situations a gap between students, instructors, and their institution exists. Nash *(Ibid.)* professed that this gap was the responsibility of the professor and his or her institution. "They needed to get on board and speak the same language, or…develop listening skills that would be effective in both online and hybrid courses". The instructors need to convince the learning institution (or authorities) that a military learning institution should be viewed or treated differently than a normal day-to-day military environment.

4.1.6 Distance student performance

In 2004, Magagula and Ngwenya (Magagula & Ngwenya, 2004:[s.p.]) undertook a study that dealt with distance student performance. They did a comparative analysis of the academic performance of distance and on-campus students. The study sought to obtain four main objectives: it examined the background characteristics of off-campus and on-campus students enrolled in parallel programmes at the University of Swaziland, the extent to which the academic performance of off-campus and on-campus students were similar and/or different, the advantages and disadvantages of learning at a distance as perceived by off-campus students, and how off-campus students felt these disadvantages could be addressed.
The study conducted this problem through survey questionnaire and interview schedule to 210, year two students enrolled in the Bachelor of Arts programme in (i) the Institute of Distance Education and (ii) the Faculty of Humanities. Of the 210 students, 90 were off-campus students and 120 were on-campus students. Simple random samples of 70 off-campus students and 70 on-campus students were selected to participate in the study. Only 23 (33%) off-campus and 40 (57%) on-campus students of the 70 each returned usable questionnaires. Interviews were conducted with 8 off-campus students.

One of the findings of this study was that the majority of distance and on-campus students were females. An interesting finding of the study, thus directly related to the present research (Cresswell, 1994:25), indicated that off-campus students consistently performed better than on-campus students in five of the six subjects. This finding confirmed findings of other research studies (Newlands & Mclean, 1996; Nielson & Tatto, 1993). Newlands and Mclean (1996) studied the performance of part-time and on-campus students and found that part-time students performed at the same level as on-campus students and sometimes even better. The next section reports on the study about off-campus students performing better than their on-campus counterparts. Nielson and Tatto (1993) studied the performance scores of primary instructors in Sri Lanka and Indonesia who were studying language programmes through distance learning and found that they performed better than their on-campus counterparts.

The question that arose was why? Holberg (1985), Perry and Rumble (1987) and Keegan (1990), first, speculated that off-campus students tended to perform better that on-campus students because the printed materials were well-written, well-packaged, and had clear objectives. Secondly, the content and concepts were properly sequenced in small chunks, starting with simple concepts to more complex concepts. Lastly, off-campus students received more direct student support services through face-to-face tutorials than on-campus students.

The third objective was to determine the advantages and disadvantages of studying through distance learning as perceived by off-campus students. Specifically, off-campus students were requested to list (i) advantages and (ii) disadvantages of learning through the distance learning mode. One of the interesting findings of this issue was that the students pointed out that the advantages of learning through distance education included, among others, attending to family commitments; the flexibility of studying at one's own pace, time and place; the opportunity to develop independent learning skills, learning to manage time, and developing self-discipline; and access to modules which were well written and easy to read and understand.

The disadvantages of learning through distance education, according to these students, included the inconvenience of using Saturdays for tutorials at the regional centres instead of attending to their social activities; lack of time to consult course lectures since Saturday tutorial schedule were always fully packed; failure of the Institute to timely attend to off-campus students' problems; unavailability of modules for some course modules at registration; the use of notes and photocopied handouts in the absence of modules; failure of

the Institute to distribute modules to students on time; inadequate time for off-campus students to use the library on Saturday; and failure of some course tutors and lecturers to show up for tutorials and lectures.

The study's final research objective asked off-campus students to recommend possible solutions to the disadvantages of learning at a distance. On the issue of using every Saturday for tutorials/lectures, off-campus students recommended that tutorials should not be scheduled every Saturday. This would enable off-campus students to attend to personal matters. Regarding unavailability of some modules at registration, off-campus students suggested that no course should be offered if its module was not available. On the issue of notes and photocopied handouts, off-campus students felt that these were not serving any useful purpose since they were inappropriate for distance learning in the first place.

It could be concluded from this study that distance learning students could perform as well as on-campus students and even much better provided that study materials were well written, properly sequenced and received more student support services. In addition, students should be encouraged the flexibility of studying at one's own pace. These students should be offered the opportunity to develop independent learning skills, skills to learn to manage time, and develop self-discipline. Lastly, distance students should be offered the opportunity to attend to personal matters and family commitments by not scheduling tutorials on awkward days like Saturdays and were at liberty to opt for the distance courses of their choice.

4.1.7 Effectiveness of distance learning instruction

Willis (1993:11-12) stated that the majority of studies concluded that distance-delivery instruction could be as effective as traditional instruction if the delivery methods selected are based on:

a. Background and experience level of the student,
b. Cognitive style of the student,
c. Diversity of students participating in the course, and
d. Appropriateness of the content being delivered.

4.1.8 The suitability of a student to distance learning

McVay (1998:12) said that not all students were suited to the distance learning environment. He suggested that before enrolling in a distance learning programme, a student would benefit from a self-evaluation of his or her learning needs and study habits. According to him, a student should ask the following questions:

a. Is he or she self-disciplined?
b. Is he or she able to manage his or her time effectively?
c. Is he or she able to work independently?
d. Is he or she goal-driven and have a high degree of initiative?
e. Is he or she comfortable using a variety of electronic telecommunication resources, including a computer and the Internet?
f. Does he or she have or are they willing to obtain Internet access from his or her home?
g. Does he or she feel that distance learning is of equal or better quality than traditional classroom instruction?
h. Does he or she feel that bringing his or her personal and professional experience into the learning environment will be beneficial for their studies?
i. Is he or she a self-directed person?
j. Is he or she proficient in written communication?
k. Does he or she believe reflection is a profitable component of the learning process?
l. Is he or she willing to actively interact with classmates, instructors, and other professionals through an electronic learning environment?
m. Is he or she willing to take responsibility of own learning outcomes throughout his or her studies?
n. Is he or she willing to dedicate a minimum of 8 to 10 hours a week to participate in this learning process?

He said that if the answer was **NO** to more than three questions, the student may wish to re-evaluate his or her interest in pursuing studies via a distance learning programme. He went on to say that:

> "Although many of the technology skills may be learned during first classes, the primary criteria of self-direction, proficient writing skills, and a willingness to interact primarily through the Internet, were the foundation for success in learning via a distance programme", (McVay, 1998:12).

4.1.9 Guiding principles for distance learning

Transformation is a constant of the 20th century, and higher education had felt its impact as we went into the second millennium. The rising intensity of advanced technology, combined with economic success and growth, affected higher education institutions and other organizations. Consequently, concepts of outcomes, lifelong, individualised or personalised learning emerged from traditional education settings.

To meet the challenge of transformation, in 1997, the American Council on Education and The Alliance (an Association for Alternative Programmes for Adults) created a national task force on distance learning. Its goal is to formulate guiding principles for distance learning students, assessors, educators and trainers in formal education programmes (Sullivan & Rocco, 1997:[s.p.]).

According to Sullivan and Rocco (1997:[s.p.]), two insights emerged from the task force's efforts. First, the digital revolution had profoundly altered previous limitations of time and space. Second, learning permeates many sectors of society, and principles of good practice must equally apply to institutions such as corporations, labour unions, associations, and government agencies. It also meant that these institutions should depend on each other for mutual benefits of the quality of education.

The efforts of the task force to formulate guiding principles for education stakeholders identified issues like how advances in technology affected higher education and postsecondary-level training, how to ensure quality in the development and delivery of distance learning and how to create student-centred distance education programmes.

The task force formulated the following five principles:

a. Learning design. Distance learning activities must be designed to fit the specific context for learning.
b. Student support. Distance learning opportunities must be effectively supported for students through fully accessible modes of delivery and resources.
c. Organisational commitment. Distance learning initiatives must be backed by organisational commitment to quality and effectiveness.
d. Learning outcomes. Distance education programmes must be guided by demonstrable learning outcomes.
e. Technology. The provider of learning must have a plan and infrastructure for using technology to support its learning goals and activities.

Sullivan and Rocco (1997:[s.p.]) stated that, these principles emphasized distance learning as a key component of new learning requisites in which students increased their responsibility for control and direction in the learning process because existing standards had failed to emphasize the different forms of learning. Therefore, the focus is on outcomes. These principles affected quality development of both teaching and learning and so efforts should be directed at them so that effective teaching and learning could take place in distance learning.

The next section concerns the achievement of outcomes and organizational effectiveness in distance learning.

4.1.10 Achievement of outcomes in distance learning

Verduin and Clark (1991:117-118) presented other factors related to the effectiveness of distance education. They believed that distance education appeared to achieve cognitive outcomes equal to those achieved by the traditional mode of delivery. They also suggested that distance education also be effective when considering affective and psychomotor outcomes. The drop-out rate, higher than in traditional mode, is a continuing problem, they asserted. Perceived course difficulty and personal motivation were other problems in the distance learning mode. According to Verduin and Clark *(Ibid)* learning materials and support systems were ways to reduce some of these problems.

Other criteria offered by Gooler (1979) cited in Verduin and Clark (1991:88) were that of access, quality, cost effectiveness and efficiency, impact, relevance to needs and generation of knowledge. He suggested that success is highly possible when greater implementation occurs. Verduin and Clark (1991:88) added another basic criterion, that of acceptability. The success in distance education depended on its acceptability to its practitioners. They suggested that the key to greater acceptability is to encourage practitioners to be more knowledgeable and engage in implementation activities.

As there are many ways to measure organizational effectiveness and its importance, it seemed there are many ways to measure distance education effectiveness and its importance as new theories to measure these structures emerge. Michael Mark (1990), cited in Moore (1990:18) believed that effectiveness is important as it may assist distance educators to analyse the cross-categories of institutions and programmes on an equal basis. Theorists have developed different models of effectiveness for higher education. But more important than the models themselves are the guidelines for assessing organizational effectiveness in distance education (Moore, 1990:18). The guidelines allow flexibility and differing viewpoints from distance educators of that particular institution. The next section reports on the models of effectiveness in learning institutions.

4.1.11 Models of effectiveness in learning institutions

Cameron and Bilimoria (1985) cited by Mark in Moore (1990:83) put forward seven different models of effectiveness in higher education institutions. They suggested that an agreement on the specific design to measure effectiveness is very important (Moore, 1990:18). The seven

guidelines allowed educators to focus on the intent and purpose of the assessment, rather than on the structure or model. The seven guidelines are:

a. **From whose perspective is effectiveness being judged:** the primary stakeholders seem to be students, instructors, administrators and faculty members who design learning materials.
b. **The domain of activity:** these could arise from the primary tasks emphasized by the institution. Examples of these activities could be curriculum planning and course development, instruction, administration and development and distribution of learning materials.
c. **The level of analysis being used to measure effectiveness:** this could be from the individual (student), subunit, or organizational and societal level. The appropriateness of the level depends on the constituency being addressed, the domain of focus, the purpose of the judging, etc.
d. **The purpose for judging:** an example could be that the purpose of examining is cutting budgets to see what result may this have on the institution and the society.
e. **The issue of time:** that is certain longitudinal effects or outcomes may not be evident with data that reflect only one point in time. Other changes may develop slowly over a period of years, while others may be faster.
f. **The actual data that are being collected:** these could include such variables as course completions, graduation, outputs of products and student satisfaction. Measures of attitudes, satisfaction with the programme and quality of support services could contribute to effectiveness.
g. **The standards by which data are judged:** institutions could be compared across the categories against the same measures to find out if one category was more effective than another. The categories of distance education institutions are: (i) Distance learning institution, (ii) Consortium, (iii) Distance learning academic unit and, (iv) Distance learning programme (Moore, 1990:18-20).

Moore (1990:19) suggested other types of comparisons such as those of goals-model approach, in which an institution is measured against the specific goals that had been set for the institution, or an improvement model in which the institution or programme is compared against itself from previous periods. He went on to critique research in distance education as it had been preoccupied with evaluating the effectiveness of particular media, and for many years correspondence, and more recently teleconferencing. He argued that there had been virtually no effort to draw together and describe or analyse the special experiences that

distance educators had of educational communications, policy, organization, learning, curriculum and instruction (Moore, 1990).

4.1.12 Student achievement in distance learning

Moore and Thompson (1997) suggested that student achievement and in-service and continuing instructor education were as educationally effective for distance learning as that delivered in a traditional format. In 1990 Moore asked a practical question namely, "is effective learning at a distance primarily an effect of variations in the behaviours of teaching institutions or is it a function of certain characteristics in the student?" He then said that if it is an interaction of both instruction and student characteristics, what characteristics in the student were of particular significance, and in what ways could the teaching institution optimally respond to them (Moore, 1990).

4.1.13 The effects of psychological and environmental factors

Gibson (cited in Moore, 1990:122) reviewed the literature that described the effects of psychological and environmental factors on learning at a distance. She discussed studies of such student characteristics as demographics, educational background, cognitive styles, learning styles and studies of attitudes to and effects of selected educational environments. Cookson (cited in Moore, 1990:192) reviewed the literature on participation and persistence of distance students; focusing specifically on the probable influence of personality on achievement. Atman (cited in Moore, 1990:136) reported results of her research on self-management that is the capacity of students to set goals, plans and implement them. She concluded that in distance education settings, where skills in goal-setting, planning operations, organizing activities and seeking closure were essential. An individual's psychological type may be an inadvertent contributor to his or her academic success, or lack thereof (Moore, 1990).

Moore, Thompson, Verduin and Clark (cited in Willis, 1994) contended that research comparing distance education to traditional face-to-face instruction indicated that teaching and studying at a distance could be as effective as traditional instruction, when the method and technologies used were appropriate to the instructional tasks, there is student-to-student interaction and when there is timely instructor-to-student feedback.

4.1.14 Course effectiveness in learning institutions

Mager and Beach (1967:71) believed that the course is efficient to the degree that it did what it set out to do. It is effective to the degree it sets out to do those things most related to the job

or vocation to be taught; comparing actual leaner performance with the objective check efficiency. Effectiveness, on the other hand, is checked by comparing objectives with the actual job (Mager & Beach, 1967:71). Therefore, there is good reason to keep checking on the appropriateness of objectives. Jobs change, and sometimes they change rapidly. In addition, for this reason, a distant practitioner needed to make periodic checks on the relevance of his or her course objectives.

4.1.15 The importance and use of student support services and/or systems

Usun (2004:[s.p.]) conducted a study to determine the use and importance of student support. The aim is to review and determine the applications and important problems of the student support services and/or systems and present a number of suggestions to enhance student support in the Turkish distance education system, Open Education Faculty (OEF). Although Usun (2004:[s.p.]) observed that the Turkish distance education system provided for various forms of student support such as student support and student needs; student support and content; student support and institutional context; and student support and technology, there were still some important problems concerning these forms of support.

Usun (2004:[s.p.]) says that, according to the findings of the literature (Murphy, 1991a; Gunawardena, 1996; Demiray, 2002), patronage and oral tradition, which are two important elements of Turkish culture, seemed to play a significant role in distance learning, even in modern Turkey. The cultural and socio-cultural context of the students enrolled in the OEF affected the four types of student support mentioned above. The institutional designers of the OEF first have to recognise the cultural and socio-cultural context, the unique needs and characteristics of students in the OEF, and then determine the services, manpower and economical resources (Usun, 2004:[s.p.]).

A paper written by Sharma (2002:[s.p.]) was devoted to the student support system operative in the Directorate of Distance Education (DDE) of Maharshi Dayanand University (MDU), Rohtak (Haryana) in India for the benefit of distance students enrolled to pursue various undergraduate and postgraduate programmes. The Student support model in the Directorate of MDU is a two-tier system – **the headquarters and the study centres**. This model is quite helpful in providing effective support to its distance students because of well-defined functions and activities at headquarters-based study centres and at the study centres situated in other affiliated institutions.

According to Sharma (2002:[s.p.]), student support services include the following:

1. Student support Services at Headquarter-Based Study Centre. The most important Student support Services at Headquarter-based Study Centre were: Administrative; Academic; and Information Collection.

a. Administrative. Under this Service the following activities were found:

i. Publicising and promoting DDE programmes. This pertains to advertisements in the national newspapers, information brochures, network of study centres, and individual guidance to the students by in-house faculty of the DDE.

ii. Creation of study centres. The headquarters established and monitored all study centres situated in affiliated institutions. They were all equipped with library facilities and reading rooms.

iii. Registration of students. Every student was registered with the Directorate with a particular registration number that should be cited in every correspondence with the DDE.

iv. Looking after the admission activities. Committees were formed to look into the different activities, i.e. preparation of application-cum-examination forms, preparation of guidelines for running DDE programmes smoothly and efficiently, preparation of norms for creating Study Centres, etc.

v. Distribution of study material. Distribution of study material was done at headquarters either by hand or by post. For assured delivery, the directorate adopted the strategy of delivering the study material by hand to the students at the time of admission and through study centres in Computer/IT, B.Ed., and B.L.I.Sc courses and programmes.

vi. Clear-cut norms. Norms were prepared for establishing study centres both at undergraduate and postgraduate levels.

vii. Personal data form. The headquarters study centre maintained a personal data form for each distant student in which a record about the personal contact programme (PCP) attendance, assignments submitted and teaching practice completed was maintained.

viii. Enquiry-cum-reception centre. An enquiry-cum-reception centre equipped with telephone facilities was located at the headquarters to respond to the queries of the students about the admission, the personal contact programme (PCP), the examination, the assignments, internal tests, the Teaching Practice, etc.

b. Academic. This student support service had the following activities:

i. Introduction-cum-orientation programme. This programme was conducted at the beginning of each academic programme to provide guidance to the candidates after enquiring about the subject combination at plus two and graduation levels. This type of orientation and guidance was conducted at the time of admission to make the students aware of the system; DDE programmes and make an assessment of their problems.

ii. Personal support. Close personal support to each student by the faculty of DDE is provided. Every faculty member has been assigned a specific programme and he/she is responsible for the progress of both the student and the programme.

iii. Preparation of guidelines and instructions. Guidelines and instructions were prepared for all the diplomas and degree programmes. These were provided to all the local co-ordinators of study centres as well as to the applicants so as to apprise them of the procedures of admission to different programmes and to keep uniformity in standards.

iv. Meeting of local coordinators. Meeting of local co-ordinators of study centres were held at headquarters so as to know their difficulties and to create a better liaison between headquarters and study centres.

v. Preparation of calendar of academic activities. A calendar of academic activities for the year in the beginning of each session was made available to the distance students at the beginning of the course.

vi. Preparation of study material. Course-team approach was used for preparation of study material by headquarters. Self-Instructional module (SIM) is prepared in accordance with the scheme of examination and syllabus duly approved by the Academic Council of the University.

vii. Provision of library facilities. Library facilities at headquarters and study centres helped the students in the preparation of their assignments. In cases of need, students were allowed to take books for two or three days during their personal contact programme.

viii. Tutoring. In-house faculty at headquarters did limited but organized interactive face-to-face tutoring for small groups of students.

ix. Assistance in examination preparations. Headquarter study centre assists in examination preparations. Role numbers and schedule of examinations are sent to the students through study centres. The University created examination centres.

x. Provision of facilities to perform practical tasks. In the few courses that required laboratories, headquarters arranged practicals in university-established laboratories of the subjects involved.

c. Information Collection. The information collection student support includes:

i. Development of student profile. Student profiles were maintained in the headquarter-based computer centre. Whenever students needed any information from the Directorate, it was provided immediately by tracking the personal record of the student from his/her admission number.

ii. Development of expert database. It was prepared in order to do regular supervision of Study Centers. By doing supervision, academic activities of the study centers were properly looked after.

iii. Sample checking of assignments and internal tests. In order to determine whether study centers were doing justice to the students in awarding marks in assignments and internal tests, a sample check was done of assignments by the headquarters study centres.

2. Student support Services at Study Centres. The most important student support services, which were provided at the Study Centres, were:

a. To provide application-cum-examination forms along with general instructions to the students during registration.
b. To give guidance, advice and information about programmes to the students.
c. To check the eligibility of students while collecting application forms along with fees.
d. To identify counsellors.
e. To distribute course material.
f. To organize counselling as per the schedule given to students during registration.
g. To provide library facilities to the students.
h. To evaluate assignments and forward the grades to headquarters.
i. To conduct term-end-examinations.
j. To provide laboratory facilities for computer / IT programmes.
k. To provide grassroots feedback to headquarters.
l. To promote teamwork and team spirit.
m. To motivate students to continue their education.

Student support reflected on the wide range of support strategies employed to assist distance students complete their courses. The following list (based on Siaciwena, 1996; Nonyongo &

Ngengebule, 1998; Mills & Tait, 1996; Lockwood, 1995; Cheng & Lam, 1993; and Sewart, 1993) demonstrated the wide range of activities that constituted student support services:

3. **Services Related to Teaching and Learning Needs.** These include the following:
    a. Teaching and learning contracts.
    b. Network of learner support centres.
    c. Compulsory residential schools.
    d. Practical sessions for professional training (for groups such as nurses and instructors) and access to facilities (for example, workshops for artisans and laboratories for natural scientists).
    e. Personal academic advising, tutoring and counselling as well as by means of correspondence, telephone and e-mail.
    f. Tutor marking and feedback, and quick turnaround of assignments.
    g. Orientation and ongoing training of tutors to ensure provision of quality support.
    h. Supply of high-quality learning material.
    i. Pre-examination counselling.
    j. Pre-course registration counselling.
    k. Pre-course study skills training.
    l. Administration of examinations.
    m. Provision of audio- and/or videotapes.
    n. Telematics.
    o. Supply of newspapers (internal and mass media).

4. **Services Related to Access and Information Process Needs.** They include:
    a. Information on fees and financial support.
    b. Information on administrative procedures and regulations.
    c. Information on registration and admission.
    d. Access to information technologies.
    e. Record management.
    f. Book services (in terms of prescribed material).
    g. Library services.
    h. Provision of personal timetables.
    i. Career guidance.

5. **Services Related to Social and Personal Needs.** These services include:
    a. Pre-course registration counselling.

b. Internet and e-mail support.
c. Peer support and study groups.
d. Career guidance.
e. Disabilities support.
f. Minorities support.
g. Adult-students support.
h. Multicultural education co-ordination.
i. Social events.
j. English as Second Language (ESOL) and languages teaching unit.

4.2 CONCLUSION

This chapter discussed some relevant concepts and issues of distance teaching and learning in the military. The main conclusions that can be made from the chapter with regards to on-line learning in the military is that the advantages of structured learning using computer and communications technologies is that it is delivered anywhere and at any time it is needed. Students would always prefer face-to-face instruction as a means of delivery if there is constant lack of opportunity to discuss issues with peers and instructors. Some issues should be kept in mind when designing distance learning in the military. These include issues of needs analysis, educational background, computer literacy, peer-to-peer sharing habits, and writing skills.

The reasons for drop out and failure in the military distance learning is often as a result of badly designed instructional tasks, lack of peer-to-peer file-sharing habits by students (or lack of encouragement by instructors), computer illiteracy, writing deficiencies, failure to communicate with students, poorly defined learning outcomes, badly designed instructional tasks, inaccessible or late course materials, faculty who could not perform basic tasks, courses not aligned with needs of students, failure to provide writing support, inappropriate assessment strategies, outdated or irrelevant content, badly situated learning, rigid deadlines and policies, counterproductive administrative policies, and hard-to-access library resources. The chapter also discussed that military distance learning depends on student autonomy to succeed. By autonomy it is meant options for student self-direction, that student activities could be done independently, and students had the opportunity to be self-starters.

Student and instructor relationships in the military depended on the training institutions to be able to prepare instructors to be able to listen to or appreciate another person's vocabulary. They also should be able to prepare instructors in any way to relate to students. In order for

students to be suited for distance teaching and learning they need to be self-disciplined, they should be able to work independently, they should have a high degree of initiative, they should be self-directed individuals, they should be willing to actively interact with classmates, instructors, and other professionals through an electronic learning environment, and they should be willing to take responsibility of own learning outcomes throughout their studies. The off-campus students could consistently perform as much the same or better than their on-campus counterparts if equipped with these skills. Student support systems should include administrative, academic, and information-collection mechanisms. The importance of distance teaching and learning policy should be able to include the issues discussed in this chapter.

The literature is not clear on the similarities or differences of discipline or dialogue in the military distance learning mode of instruction. Distance learning practitioners tended to generalise or fluctuate between distance learning effectiveness, successful distance learning programmes and in what the student needs to be successful in distance learning. Hence, the skills, knowledge, abilities and attitudes needed by the distant student for the purposes of discipline and/or dialogue in distance learning settings are often incorporated in these variables when they are discussed.

CHAPTER 5

THEORETICAL FRAMEWORK OF THE STUDY

5.1 INTRODUCTION

The theoretical framework supporting this investigation lies vested in Moore's theory of transactional distance (hereafter Moore's theory) with a strong emphasis on dialogue. In dialogue, everyone brings his or her experiences, characteristics, etc., in order to reach an amicable solution. In the setting of the current study, the solution of ***performance excellence*** in the department of defence (DOD) distance learning is envisaged. Performance excellence is composed of programme structure/design and development, subject structure/student assessment and programme evaluation, student support, motivation, learning theories, and other factors, qualities and characteristics associated with transactional distance supposed to be found in any ideal instructional design. This is further displayed in figure 5.1 below. However, the theoretical framework of the study relied very heavily on curriculum development, instructional design, subject structure, and/or programme evaluation applications supported by Moore's theory as applicable to the teaching and learning interactions.

In this chapter the aim is to suggest a theoretical framework around a number of instructional design models that is incorporated into Moore's theory. The next step is to design a conceptual framework from the theoretical framework. The conceptual framework is the model that is used to evaluate the DOD distance learning programmes of various institutions with regards to their Arms of Services (AoSs). The components used in assessing the design and effectiveness of DOD distance learning programmes emanate from this conceptual framework. Again, the emphasis is on dialogue.

5.1.1 Performance excellence

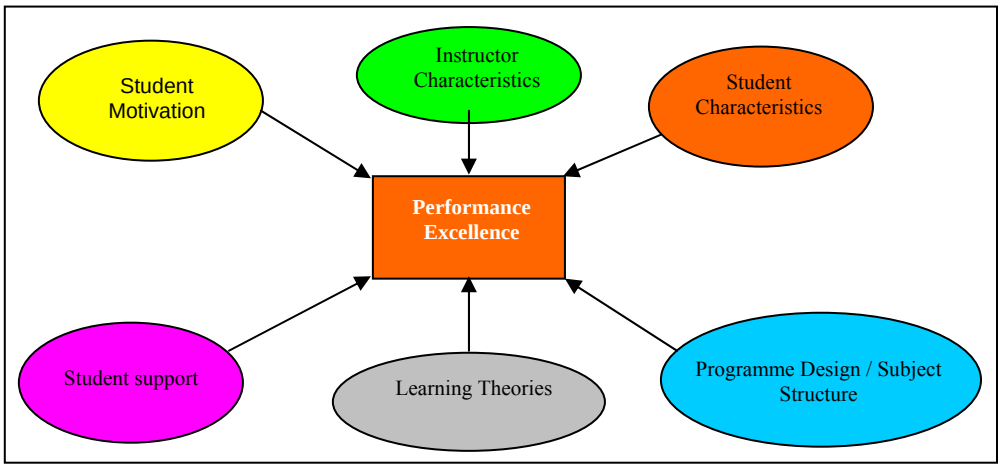

Figure 5.1: Conceptual framework of performance excellence

5.2 DEFINITION OF A THEORETICAL FRAMEWORK

A theoretical framework is a structured organization of ideas supported by evidence so as to produce a valid explanation. It does so by establishing a relationship between more than one concept and variable. According to Mayer and Greenwood (1980:121):

> "A theoretical framework is a causal orientation toward the contemplated study. As such, it formulates a detailed model of the given … problem and its proposed solution. It also furnishes a supportive framework for the model, based on the empirical evidence garnered from prior research and/or experience plus the value assumptions underlying the proposed solutions. The theoretical framework presents all this in relatively abstract terms. It identifies, defines and elaborates the concepts reflected in the … problem; it proposes solutions, and the various social forces impinging upon them. The theoretical framework may be thought of as a mental diagram, or map, which interrelates these concepts, showing where, when and how they fit together. The written statement of the theoretical framework is, therefore, the analyst's description and explanation of this conceptual map."

5.3 JUSTIFICATION OF A THEORETICAL FRAMEWORK

According to Mayer and Greenwood (1980:122), a theoretical framework provides a structure by specifying a relationship between two or more variables. At times, it is possible to specify the direction of the relationship (casual), whereas at times it is not be possible to do so. The former is often associated with quantitative research and the latter with qualitative research *(Ibid)*. The present study seek to establish a relationship of variables as spelled out in the instructional design, and as contained in the 'performance excellence' framework with the emphasis on dialogue. The search for these relationships is important in the investigation. Thus, the proposed structure that the theoretical framework provides identifies the boundaries of the research *(Ibid)*.

5.4 INSTRUCTIONAL DESIGN (ID) SYSTEM THEORY

Basically, instructional design (ID) is the process to create a learning programme (previously referred to as a course). Different authors formulated various definitions and other terms were used synonymously. The term *instructional design* has two meanings depending on the context in which it is used. In most cases the term refers to a specific subject field. According to Briggs (1970:[s.p.]), instructional design (as subject) could be described as:

> "The entire process of analysis of learning needs and goals and the development of a delivery system to meet the needs; includes development of instruction and instructional materials and activities; and tryout and revision of all instruction and student assessment activities".

A less-common use for the term is to refer to the design component of the instructional design procedure. As such, the terms that are used by various authors in the same context as instructional design are curriculum design, programme evaluation, and learning programme or instructional programme design. The terms 'instructional design' and 'instructional development' are used interchangeably in the literature of instructional technology (Kang, 2004:39).

However, Gagné**,** Briggs and Wager (1992:[s.p]) made a distinction between 'instructional system design' and 'instructional development'. 'Instructional system design' is the systematic process of planning instructional systems, while 'instructional development' is the process of implementing of plans (Gagné *et al*., 1992:20 cited by Kang, 2004:39).

According to Dick and Carey (1996:2), a contemporary view of instruction is that it is a systematic process in which every component is crucial to successful learning. This perspective is usually associated with the use of the systems approach to instructional design. The purpose of the systems approach is to bring about learning with its components being the instructors, the students, the instructional materials (or resources), and the learning environment. These components interact in order to achieve the goal of learning.

5.4.1 The Need for a Systems Approach

The need for a model for course and/or curriculum design (an instructional-systems approach) is that it provided the faculty (instructors/facilitators) with the access they needed in the process, retaining responsibility for teaching and academic content (Diamond, 1989:2). In the same vein, the academic administration of the institution support these activities and provide resources necessary and needed for these efforts to be successful. The systematic approach focuses, at the outset, on what the student wants, or is supposed to know or do when the instruction is concluded. Another reason for the system is the careful linkage between each component. Dick and Carey (1996:8) say that there is and should be a relationship between the instructional strategy and the desired learning outcomes.

5.4.2 Advantages of a Systems Approach

According to Diamond (1989:4), the advantages associated with a systems approach are the following:

a. It identifies the key factors that should be considered in a sequential order.
b. It serves as a procedural guide for those directing the project.

c. It allows those involved to understand where they are in the process and their role within it.

d. It improves efficiency by reducing duplication of effort and ensuring that critical questions are asked and alternative solutions explored.

5.4.3 Common Characteristics

Hannun and Briggs (1980), cited by Diamond (1989:4-5) identified the common characteristics in instructional design systems approach, as the following:

a. Planning, development, delivery, and evaluation of instruction are based on a systems theory.

b. Goals are based on an analysis of the environment of the system (for example), a year college would, and must, have different goals from those of a university).

c. Instructional objectives are stated in terms of performance.

d. The design of the programme is sensitive to the competencies of the students and of their short- and long-term academic goals.

e. Considerable attention is paid to planning instructional strategies and selecting media.

f. Evaluation is part of the design and revision process.

g. Students are measured and graded by their ability to achieve and master desired standards and criteria rather than by comparing one student with another.

5.5 TYPES OF INSTRUCTIONAL DESIGN (ID) APPROACHES

It emerges from the literature that teaching and learning instruction is normally designed, developed and implemented with a number of learning theories in mind. According to Schiffman (1995:[s.p.]), a solid foundation in learning theory is an essential element in the preparation of instructional system design because it permeated all dimensions of instructional system design. It therefore means that a teaching and learning instructional design will often be designed on one or specific learning theory foundation. Seels and Glascow (1998:179) is cited by Kang (2004:40), added that theories of learning and instruction are described as philosophical paradigm that affect design decisions. Thus, an instructional design should be understood as based on a certain learning theory as its learning wisdom.

There is no single systems-approach model for designing instruction. It is contended that there are two types of approaches that are developed in curriculum work (Smith & Lovat,

2003:113). The first is called normative because it provides a sequence of steps that should be used in any curriculum planning tasks. According to Smith and Lovat (2003:113) such approaches include the objectives model of Tyler (1949:63-82) and the rational models of Taba (1962) and Wheeler (1967), and have primarily technical interests of control.

The second type of approach is labelled descriptive, because it describes the actual steps undertaken by curriculum planners *(Ibid)*. Such approaches were provided by Walker (1971:[s.p.]), Stenhouse (1975:[s.p.]), Yinger (1979:[s.p.]), and Smith (1983:[s.p.]). These approaches do not only respond to the technical interests but also have interests in communication and the potential for critical curriculum work *(ibid)*. According to Diamond (1989:4), models designed by Briggs (1970), Gerlach and Ely (1980), Kemp (1977), and Russell and Johanningsmeir (1981) are representative that include these characteristics while focusing on course and lesson design.

5.5.1 The Normative Approaches

Tyler (1949) cited by Smith and Lovat (2003:114) puts forward an objective instructional design approach as follows:

a. Specify objectives.
b. Select learning experiences.
c. Organise learning experiences.
d. Implement learning experiences.
e. Evaluate.

Kelly (2004:14) points out that Tyler (1949) suggest that the curriculum must be seen as consisting of four elements and curriculum planning; therefore, it has four dimensions: objectives, content or subject matter, methods or procedures, and evaluation. In short, we must distinguish in our curriculum planning and development what we are hoping to achieve, the ground we are planning to cover in order to achieve it, the kinds of activities and methods that we consider likely to be most effective in helping us towards our goals and the devices we will use to evaluate what we have done. Kelly (2004:14-15) says that Tyler's (1949) own way of putting this point is to suggest that there are four fundamental questions which must be answered in developing any curriculum and plan of instruction. These, he listed as:

1. What educational purposes should the school seek to attain?
2. What educational experiences could be provided, that are likely to attain these purposes?
3. How could these educational experiences be effectively organized?
4. How could we determine whether these purposes were being attained?

The following authors are also proponents of the 'objectives' model:

a. Taba (1962) as cited by Smith and Lovat (2003:116).
b. Wheeler (1967) as cited by Smith and Lovat (2003:116).
c. Nicholls and Nicholls, (1972:21).
d. Bradley (2004:17).

5.5.2 The Descriptive Approaches

Davis, Alexander, and Yelon (1974:9-18) suggests the following instructional design as constituting a descriptive model:

a. Describing the current status of the learning system.
b. Deriving and writing learning objectives.
c. Planning and implementing evaluation.
d. Performing a task description and task analysis.
e. Applying principles of human learning.

Gagné and Briggs (1979:23) provide their descriptive approach as follows:

System Level:

Stage 1: Analysis of needs, goals and priorities.
Stage 2: Analysis of resources, constraints, and alternate delivery systems.
Stage 3: Determination of scope and sequence of curriculum and courses; delivery system design.

Course Level:

Stage 4: Determining course structure and sequence.
Stage 5: Analysis of course objectives.

Lesson Level:

Stage 6: Definition of performance objectives.
Stage 7: Preparing lesson plans (or modules).
Stage 8: Developing, selecting materials, media.
Stage 9: Assessing student performance (performance measures).

System Level

Stage 10: Instructor preparation.
Stage 11: Formative evaluation.
Stage 12: Field testing, revision.
Stage 13: Summative evaluation.
Stage 14: Installation and diffusion.

The following authors are also proponents of the 'descriptive' approach: Andrews and Goodson (1980) cited by Moore (1990:320-321), Boyle (1981:185), Davies (1981:10), Wulf and Schave (1984:2-4), Earl (1987:14), Hunkins in Hass (ed) (1987:322-326), Diamond (1989:7), Lewis *et al.* (1991:35), Banathy (1991:177-193), Briggs *et al.* (1991:10), Hass and Parkay (1993), Willis (1992) cited by Moore and Thompson (1997:36), Dick and Carey (1996:2-7), Toohey (1999:21) and Breier (2001:116-117).

5.6 LEARNING THEORIES IN RELATION TO INSTRUCTIONAL DESIGN (ID)

Learning theories influence the way instructors and other educational practitioners thought about their students and the learning material. They therefore influenced the way in which a learning event would be planned. Since a learning programme consist of an integration of learning events, which is designed by the instructional designer, it is imperative that the instructional designer should apply a learning theory or theories in the way he/she went about designing the instruction. Should the instructional designer during analysis of the training/learning situation decide to follow a behaviouristic approach, his/her design would for example, make allowance for a large number of drill and practice events. Should he/she follow a constructivist approach, he/she would develop more experimental learning events. Should he/she follow a cognitive approach, he/she would develop learning events that involved continuity and repetition. These learning theories are discussed in detail later in this section.

There is a connection between instructional design and development strategies and various learning theories and that both were somewhat confusing. Instructional design is normally associated with one or more learning theories or approaches. It is sometimes difficult to differentiate between the three theories or fundamental approaches namely, behaviourism, cognitivism, and constructivism. The sections below discuss these theories and their influences on ID.

5.6.1 **Behaviourism** is based on observable changes in behaviour and the influence of the external environment so as to predict and control such behaviour. As a learning theory, behaviourism could be traced back to Aristotle, whose essay "Memory" focused on associations being made between events such as lightning and thunder. Other philosophers that followed Aristotle's thoughts include Hobbes (1650), Hume (1740), Brown (1820), Bain (1855) and Ebbinghause (1885) (Black, 1995). According to this theory, learning is viewed as the acquisition of responses and is achieved through frequent responding and immediate reinforcement of appropriate behaviours (Mayer, 1992 cited by Kang, 2004: 40). In other

words, learning is believed to occur when a desired behaviour is consistently reinforced. Thus, the primary focus of this theory is on the study of observable behaviour: stimuli and responses.

It is sometimes referred to as 'change of behaviour' because behaviourism focused on a new behavioural pattern being repeated until it becomes automatic. According to Good and Brophy (1990:187), the theory of behaviourism concentrate on the study of overt behaviours that could be observed and measured. Instruction is the arrangement of contingencies under which learning takes place. Contingencies are environmental conditions that shape the individual's behaviour, including antecedents and consequences. All components of contingency must be measurable and observable (Kang, 2004:40). Learning is determined by objective measures in which behaviour is operationally defined and measured according to some behavioural indicators (Shambaugh & Magliaro, 1997:27 in Kang, 2004:40).

Saettler (1990:286), stated that behaviourism did not have an impact on educational technology until the 1960s, which is the time that behaviourism actually began to decrease in popularity in American psychology. He identified six areas that demonstrated the impact of behaviourism on educational technology in America: the behavioural objectives movement; the teaching machine movement; the programmed instruction movement; individualised instructional approaches; computer-assisted learning, and the systems approach to instruction.

Behaviourists assess students to determine their predisposition to learning (Ertmer & Newby, 1993:[s.p.]). With this in mind, the practice of instructional design could be viewed from a behaviourist or cognitive approach as opposed to a constructivist approach. As a result, instructors and designers using this perspective usually state the objectives of the instruction as student behaviours, use cues to guide students to the desired behaviour, and use contingencies to reinforce the behaviour (Newby *et al*., 1996 in Kang, 2004:42). When designing from a behaviourist/cognitive stance, the designer analyses the situation and sets goals. Individual tasks are broken down and learning objectives are developed. According to Kang (2004:42), "two distinctive aspects of what had become instructional design and development, 'behavioural objectives' and 'formative evaluation' first became visible in the 1930s (Kang, 2004: 39)". Objectives are specified in behavioural terms and serve as the basis for evaluating the effectiveness of the instruction.

According to Kang (2004:42), many early advocates of instructional systems design and development, such as Finn, Banathy, Briggs, and Gagné, played important roles in systems

development. Banathy (1968) defined the systems approach as "a self-correcting, logical process for the planning, development, and implementation of instruction" (in Kang, 2004:40). Finn (1962) as quoted by Kang (2004:43), argues for the desirability of using scientific procedures to determine educational goals, specifically the use of theories of analysis in the statement of objectives and systematic development of instruction. According to Kang (2004:43), Gagné (1965) made efforts to connect learning objectives to instructional design. This is self-evident in the normative and descriptive instructional design approaches as discussed above.

Many instructional design models (such as the Gagné-Briggs model) that have been developed since the early twentieth century and dominated the study of human learning for the first half of the century had been based on behaviourism and cognitive theories. They vary widely in terms of philosophical orientation, theoretical perspectives, and operational procedures. Some were prescriptive, providing systematic approaches to design courses (Kang, 2004:40). Others were descriptive, providing only a conceptual diagram (Gustafson & Branch, 1997 cited by Kang, 2004:40). They provided instructors and instructional designers with procedural frameworks for systematic production of instruction for traditional classroom-based learning, but have also been used extensively in distance learning settings.

Evaluation consisted of determining whether the criteria for the objectives had been met. In this approach the designer decided what is important for the student to know and attempted to transfer that knowledge to the student. The learning package is somewhat of a closed system, since although it may allow for some branching and remediation, the student is still confined to the designer's world (Mergel, 1998:[s.p.]).

The weakness of the behaviourist approach to instructional design is that the student's focus may find himself or herself in a situation where the stimulus for the correct response did not occur; therefore the student could not respond (Schuman, 1996:[s.p.]). Its strength is that the student is focused on a clear goal and could respond automatically to the cues of that goal (*ibid*).

5.6.2 **Cognitivism** recognised that much learning involved associations established through continuity and repetition (Good & Brophy, 1990:187). This perspective, as the name suggests, focuses on the cognitive process as the source of learning (Kang, 2004:41). As with behaviourism, cognitive psychology could be traced back to the ancient Greeks, Plato and Aristotle. The cognitive revolution became evident in American psychology during the 1950s

(Saettler, 1990:320). One of the major players in the development of cognitivism is Jean Piaget, who developed the major aspects of this theory as early as the 1920s. Piaget's ideas did not impact North America until the 1960s after Miller and Bruner founded the Harvard Centre for Cognitive studies (*ibid*).

The cognitive approach portrays humans as processors of information, emphasizing the role of the student's activities and mental structures in comprehension and the creation of meaning (Kang, 2004). It held that cognitive learning meant knowledge learning, which included not only knowledge itself but also its application. Knowledge included declarative knowledge (knowing what), procedural knowledge (knowing how), and conceptual knowledge (the acquisition of the knowledge of "when and how") (Christensen & Tennyson, 1988 cited by Kang, 2004:41). New knowledge is obtained and existing knowledge is organised and changed. As such, the investigative process and the principles of problem-solving and decision-making were part of this school (Kang, 2004:41).

Cognitive theorists also acknowledged the importance of reinforcement, although they stressed its role as a motivator. Learning thereby is defined as a change in knowledge stored in memory and is governed by internal memory processes (Newby *et al*., 1996, in Kang, 2004:41). As such, the primary responsibility of the instructional designers or experts is to select appropriate conditions for learning to occur (Gagné, 1977, in Kang, 2004:41). However, even while accepting such behaviouristic concepts, cognitive theorists viewed learning as involving the acquisition or reorganisation of the cognitive structures through which humans processed and stored information (Good & Brophy, 1990:187).

Although cognitive psychology emerged in the 1950s and began to take over as the dominant theory of learning, it isn't until the late 1970s that cognitive science began to influence instructional design. Cognitive science began a shift from behaviouristic practices that emphasised external behaviour, to a concern with the internal mental processes of the mind and how they could be utilised in promoting effective learning. The design models that had been developed in the behaviourist tradition were not simply tossed away, but instead the "task analysis" and "student analysis" parts of the models were developed. The new models addressed component processes of learning such as knowledge coding and representation, information storage and retrieval as well as incorporation and integration of new knowledge with previous information (Saettler, 1990:344).

Because both behaviourism and cognitivism were governed by an objective view of the nature of knowledge and what it meant to know something, the transition from behavioural instructional design principles to those of a cognitive style is not entirely difficult. The goal of instruction remained the communication or transfer of knowledge to students in the most efficient and effective manner possible (Bednar *et al.*, cited in Anglin, 1995). The weakness associated with cognitivism to instructional design is that the student learned a way to accomplish a task, but it may not be the best way, or suited to the student or situation (Schuman, 1996:[s.p.]). Its strength is associated with the fact that the goal is to train students to do a task the same way to enable consistency (*ibid*).

5.6.3 Constructivism is based on the belief that "students constructed their own reality or at least interpreted it based upon their perceptions of experiences, so an individual's knowledge is a function of one's prior experiences, mental structures, and beliefs that were used to interpret objects and events" (Jonassen, 1991:5). The uniqueness of each person is emphasized and valued. Therefore, students were encouraged to bring their special talents and skills to a situation so that they could discover what is meaningful or useful to them. Instructors, then, were not seen as dispensers of knowledge but instructors in the teaching-learning process. They organised students to solve problems and construct personal realities through exploration and discussions. Education is perceived as a process of knowledge construction rather than the transfer of a body of knowledge (Kang, 2004:41). "What someone knew is grounded in perception of the physical and social experiences which were comprehended by the mind" (Jonassen, 1991:6).

According to Good and Brophy (1990:187), Bartlett (1932) pioneered what became the constructivist approach. Some of the proponents of constructivism included such philosophers as Bruner, Ulrick, Neiser, Goodman, Kant, Kuhn, Dewey and Habermas. The most profound influence is Jean Piaget's work that is interpreted and extended by von Glasserfield (Smorganbord, 1997).

The shift of instructional design from behaviourism to cognitivism is not as dramatic as the move into constructivism appears to be, since behaviourism and cognitivism are both objective in nature. Both supported the practice of analysing a task and breaking it down into manageable chunks, establishing objectives, and measuring performance based on those objectives. Constructivism, on the other hand, promoted a more open-ended learning experience where the methods and results of learning were not easily measured and may not be the same for each student. And while behaviourism and constructivism are very different

theoretical perspectives, cognitivism shares some similarities with constructivism. Constructivism holds that knowledge is not passively received but actively built up by the cognizing subject (Jonassen, 1996 cited by Kang, 2004:41).

Constructivism became a dominant force in education in the 1990s. Its perspective represents a collection of principles from a number of disciplines, such as cognitive psychology (e.g. the mind actively constructs its interpretation of information), developmental psychology (e.g. individuals' construction of information were different due to cognitive developmental differences), and anthropology (e.g. learning is a natural socio-cultural process) (Newby *et al*., 1996 cited by Kang, 2004:41). According to Simons (1993, in Kang, 2004), constructive learning is active (i.e. students process information meaningfully), cumulative (i.e. learning is developed or built on prior knowledge or past experience), integrative (i.e. students elaborate and interrelate new knowledge with their current knowledge), reflective (i.e. students consciously reflect on what is learned), and goal-directed (i.e. students subscribe to goals of learning) (Kang, 2004:41).

It is evident that the theoretical perspective of constructivism focuses on the realms of students' evolving knowledge and of the critical role that social negotiation plays in helping students interpret their experience (Jonassen, 1996; Newby *et al*., 1996 cited by Kang, 2004:41). It called for the creation of innovative practices to promote personalized education. This perspective is partially reflected in activities such as group investigation, role-playing, and various forms of cooperative learning through authentic tasks (Kang, 2004:41).

To design from a constructivist approach required that the designer produced a product that is much more facilitative in nature than prescriptive. The content is not pre-specified, direction is determined by the student and assessment is much more subjective because it did not depend on specific quantitative criteria, but rather the process and self-evaluation of the student. The standard pencil-and-paper tests of mastery learning were not used in constructive design; instead, evaluation is based on notes, early drafts, final products and journals (Assessment [On-line]).

The weakness of constructivism is that in a situation where conformity is essentially divergent thinking and action may cause problems (Schuman, 1996:[s.p.]). Where prescription is the order of the day and open dialogue is not allowed, constructivism may "…suffer some negative consequences". The strength is that, because the student is able to interpret multiple realities, he or she is in a better position to be able to deal with real life situations. Interaction,

freedom of expression, and exploration of ideas through discussion is much celebrated in constructivism.

5.7 MICHAEL MOORE'S THEORY OF TRANSACTIONAL DISTANCE

According to Verduin and Clark (1991:121), Michael Moore's theory of Transactional Distance is widely considered to be one of the better developed paradigms related to the field of distance education. It is accepted as a global theory for the further development of distance education (Gokool-Ramdoo, 2008:1). The transactional distance theory (TDT) discusses the role that pedagogy plays in distance between learners, their teachers, and the institution they have enrolled. In addition, the theory looks critically at issues pertaining the profile of the students (i.e. their dependence and independence), of their teachers (i.e. their roles and skills), of their institution (in terms of designing the curriculum and administration). This theory critically examines the role played by communication (or interaction) and student support. It evolved from basic insights regarding independent learning and student autonomy (Moore, 1972) into a multidimensional set of interrelated definitions, propositions and constructs known as the "Theory of Transactional Distance" (Moore, 1993 cited by Gorsky & Caspi, 2005). Transactional Distance Theory is a set of interrelated distance learning systems that is sustainable by student support. Student support should always be a component of distance learning in order for its survival and effectiveness.

The term *transaction* denotes the special nature of the relationship between the student and the instructor during the distance learning event: mutually acting on each other, affecting each other to evoke an experience, a meaning, for the individual student during this event (Stirling, 1997). The student, who interpreted the event, acted on the dialogue and structure *(ibid)*. The dialogue produced a response *(ibid)*. The dynamic interplay between student and instructor and student and content were continuous during which meaning evolves *(ibid)*. The created response is the realised experience of the student *(ibid)*. Each transaction by a student would be unique as the student's frame of mind, situation, and experiences evolved *(ibid)*.

According to Mueller (1997), the term *transactional distance* replaced the older term *distance education*. Distance education meant a pedagogical concept – and not only geographic separation of students and instructors *(ibid)*. According to the CMC Resource Site (2004), prior to the development of this concept, definitions of distance revolved around the physical separation of the instructor and the student. The CMC Resource Site continued to say that Moore however postulated that the concept of Transactional Distance Theory is concerned more with pedagogy than with geography *(ibid)*. Moore did not propose the term

transactional distance until 1980. His transactional concept drew upon the work of John Dewey (Moore, 1991). Dewey, in his book entitled *Experience and Education* (1938:43), stated that situation and interaction were inseparable. "An experience is always what it is because of a transaction taking place between an individual and…his environment…The environment…is whatever conditions interact with personal needs…to create the experience…" (*ibid*).

According to Moore (1993, cited in Keegan, 1993:23), three major variables affect the transactional distance. These are (a) the instructional dialogue, (b) programme structure, and (c) autonomy of the student. These variables would normally work in combination with each other and thus together affecting transactional distance (or distance education) (Figure 5.2). A discussion of each variable follows.

5.7.1 Transactional Distance in a distance learning environment

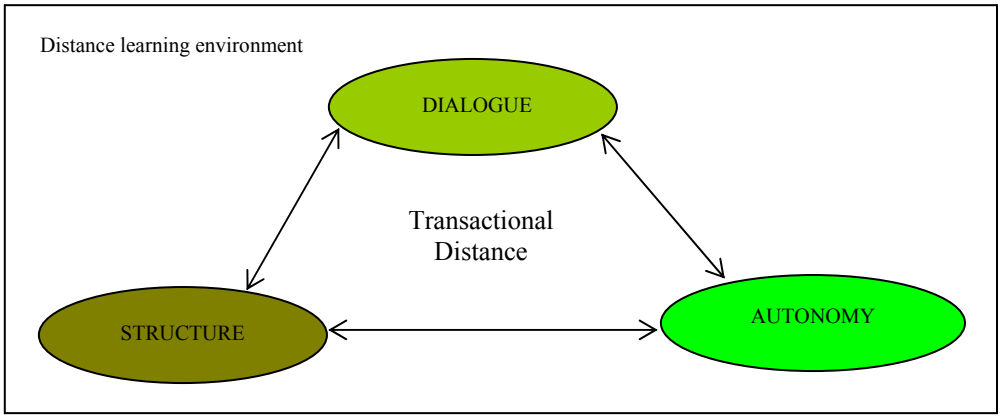

Figure 5.2: Diagrammatic representation of Transactional Distance

5.7.2 Variables informing Transactional Distance

According to Moore (1993) cited by Mueller (1997), separation between the instructor and the student in distance education is more than just the distance separating them. To him, there is "… a psychological and communications space to be crossed, a space of potential misunderstanding between the inputs of the instructor and those of the student" (Moore & Kearsley, 1996). This is the space that Moore calls transactional distance. This distance affected both the teaching and learning and so efforts should be directed at closing this distance so that effective teaching and learning could take place.

5.7.2.1 Instructional dialogue is an interaction between the instructor and student, specifically the communicative transaction of giving instruction and responding. Dialogue is characterized by different forms of communication; two-way, real-time and dialogue internalized within the learner. Thus, it has a purpose, is necessary, helpful and valued by

each party. Both partners are respectful and active listeners and contributors in the learning event at the same time. However, it is directed towards an improved understanding by the student and him or her achieving his or her educational goals.

The extent and nature of the dialogue is determined by the educational philosophy and policy behind the distance learning programme. The design and development of the course is also part of this. In addition, the subject matter, the content area, and the academic level of the course play an important part in dialogue. The selection and training of instructors, their personalities and learning styles of the students also determine dialogue. As dialogue is characterized by communication, it is determined by the medium of communication. The number of students each distant instructor is responsible for and the emotional, the needs and motivational environment of instructors and students also determine dialogue. In addition, the regard or disregard of given educational activities determine dialogue. The essential concern here is whether or not opportunities for such dialogue are built into a learning programme and whether or not they are mediated in the best possible way in the circumstances.

5.7.2.2 Programme structure refers to how the instructional programme is designed, the organisation of the instruction and the use of various communication media. In this sense and for this reason Moore (1991), cited by Stirling (1997), said that structure reflected the programme's capacity to respond to a student's individual needs. Building on this foundation, Mueller (1997) said that structure expressed the rigidity or flexibility of the programme's educational objectives, teaching strategies, evaluation methods and the ability to accommodate each student's individual needs.

According to Moore (1993, cited in Keegan, 1993:28-30), a number of processes had to be structured into every programme. These were presentation of content; support of the students' motivation; helping students develop skills of analysis and criticism; advice and counsel for the students; arranging for students to practice, apply, test and evaluate what is learnt; and arranging for students to create knowledge.

How each of these is structured into the programme would determine whether that programme would overall be highly structured or less structured and ultimately this determined the transactional distance that would exist between the student and the instructor. A highly-structured medium would mean no or little dialogue and inputs from the student. An example is a recorded television programme. A less structured medium allows more dialogue and a wide range of alternative responses to students' queries. An example is a teleconference

session. Thus, the structure would determine the level of rigidity or flexibility in the programme.

To put it in a nutshell, programme structure refers to the extent to which a programme could accommodate or be responsive to each individual's needs, and suggests the need for multi-disciplinary teams to design learning experiences in such a way that diverse needs are catered for and opportunities for student-student and student-instructor dialogue were maximised.

5.7.2.3 Student autonomy referrers to the characteristics of self-direction. The CMC Resource Site (2004) said that, "student autonomy depended upon the individual student's sense of personal responsibility." In a broad sense, student autonomy means the extent to which in the distance teaching and learning relationship, it is the student rather than the instructor who determines the goals, the learning experiences, and the evaluation decisions of the learning programme. It raised questions about the extent to which a programme can or must be delivered in such a way that it helps students to reach a point where they no longer need another person to mediate their learning. At this stage students could cope with a high degree of geographical and time distances between themselves and their peers and instructors. Saba (1988) cited by Stirling (1997) added the variables of student and instructor control. How autonomous the student is would also depend on how much control he or she has for decision-making. This would also include the instructor-control of the student. For example, the CMC Resource Site article on Transactional Distance Theory (2004) said that, "high levels of student autonomy would necessitate lower levels of instructor control." According to Knowles (1970), "not all students were self-directing." However, from a psychological perspective, as a person matures, his or her self-concept moves from dependency towards self-direction (Gravett, 2001). Self-directed learning could be a new experience for some students. It is for this reason that Knowles (1970) suggests that students have to be prepared and motivated for self-direction. Boyd (1966) cited by Mueller (1997) spoke of a fully autonomous student. He says he is emotionally independent of an instructor, can approach subject matter directly and has a self-concept of being self-directed. Hence, instructors have to assist students to acquire the skills of fully autonomous learning.

5.7.2.4 Other factors influencing the three major variables

The extent of transactional distance in an educational programme is a function of the above-mentioned three sets of variables, each characterised by major qualities of teaching and learning environmental factors. But there were an additional number of other factors, qualities and characteristics influencing each variable. These are depicted in Table 5.1 below.

It should be noted that there is an overlap of these factors from one variable to the other. This, in turn, signifies a strong relationship that exists between and among the three major variables.

5.7.2.5 Factors influencing Transactional Distance

S/N	DIALOGUE	STRUCTURE	AUTONOMY
A	**The concept of Transactional Distance (distance or separation is crucial)**		
	Transactional distance gives instructional designers a theoretical framework to build an effective learning environment. Instructors and designers enlightened with the underlying dynamics of transactional distance create an educational system by balancing the interplay of structure and dialogue to fit the program's intended purpose. Moore's theory provides a way to describe varying levels of instructor-student interaction. This interactive awareness helps an instructor to build a more effective learning environment. Additionally, this theory aids and assists in the development of innovative instructional models.		
B	**Characteristics of the three major Variables**		
	Refers to two-way communication between Instructor and student. (It demands partnership, respect, warmth, consideration, understanding, honesty and sincerity),	Is the degree to which, objectives, teaching & study methods, and evaluation are adapted to the needs of individual students. (It expresses the rigidity or flexibility of the programme).	Means the extent to which in the teaching and learning relationships it is the student rather than the instructor who determines the goals, the learning experiences, and the evaluation decisions of the learning programme. (It refers to the characteristics of self-directedness).
C	**Factors that influences the three major Variables**		
	-The number of students each instructor must provide instruction to. -The physical environment in which the students learn or the instructors teach. -The emotional environment of instructors (i.e. their rewards or achievements). -The instructor personality (i.e. might not take advantage of the interactivity of a programme). -The student personality (i.e. might not take advantage of the interactivity of a programme). -The content (i.e. the experience and academic levels of both, the student or the instructor).	-Is determined by the nature of the communications media being employed. -Is determined by the philosophy and emotional characteristics of instructors. -Is determined by the personalities and other characteristics of students. -Is determined by the constraints imposed by educational institutions. -Is the formality or informality of the subject matter (i.e. necessity for high or low levels of structure for some students). -The main characteristics is the structuring of the learning and teaching process (It is the extent of its application – with reference to education technology).	-Independent learning. -The ability of students to share responsibility for their own learning processes. -Personality characteristics of preferred way of learning and being taught. -How students use teaching material and teaching programmes to achieve goals of their own, in their own ways, under their own control. -DE programmes should be examined to see to what extent the instructor or the student controls the main teaching and learning processes, and could be classified according to the degree of student autonomy permitted by each programme. -Not all students are at the state of readiness for fully self-directed learning.
D	**Shortcomings of the three major Variables**		
	-TD is greater when there is little dialogue and smaller when there is more dialogue.	-Highly-structured medium means little or no dialogue and inputs from students. -Less-structured medium allows more dialogue and a wide range of alternative responses from students.	-High levels of student autonomy would necessitate lower levels of instructor control. -For instance, the greater the TD, the more such autonomy the student will exercise.

Table 5.1: Factors that influenced transactional distance between the three major variables. (Adapted from Moore, 1993 as cited in Keegan, 1993: 25-32 and arranged in a tabular form for purposes of the study)

5.8 DIALECTIC METHOD IN SOCIAL THEORY

According to Rowland (2003), learning may indeed be such a complex and misunderstood phenomenon that it cannot be completely explained by any single theory, but the attempt to unify, or rather to integrate, is a worthwhile, perhaps critical, component of making it understood. Dialogue has generally been assigned a fundamental place in Western views of education. But it cannot be said that dialogue is confined to teaching and learning only; it has been and always will be an important phenomenon social theory, politics, and other sciences. Gorsky, Caspi and Tuvi-Arad (2004:2), add that dialogue has been viewed from both philosophical and pedagogical approaches. Dewey (1916), Buber (1965), Bruner (1966), Rogers (1969) Freire (1972), cited by Gorsky, *et al* (2004:2) contend that philosophical approaches to interpersonal instructional dialogue tend to emphasize either its epistemological advantages in the pursuit of knowledge and understanding (Socrates and Plato) or its moral and political foundations based on egalitarianism and mutual respect. Dialogue as been discussed in the study so far could also be reinforced by an analysis of 'dialectical' method.

Social theory is an essential tool used by scholars in the analysis of society; through the use of theoretical frameworks, social structures and phenomena is analyzed and placed in context within a particular school of thought. Social theory as a discipline emerged with the period now considered to be modernity and is largely equated with an attitude of critical thinking, based on rationality, logic, objectivity and the desire for knowledge through a posteriori methods rather than through a priori methods.

According to Flew (1981:94) the term 'dialectic' is derived from Greek meaning 'to converse' or 'to discourse'. The Longman Dictionary of Contemporary English (2001) defines the term dialectic as "a method of examining and discussing ideas in order to find the truth". Dialectics is the realization of truth (Van Gerwen, 2001:71). Furthermore it also addresses the notion that we have to engage in dialogue to discuss the premises that are probable. On the other hand 'dialogue' and 'dialectic' are also closely linked and associated with the notion of 'discourse' or stories. As a set of stories, discourse reminds us of a partial exposition of the reality we are dealing with (Smith & Lovat, 2003:20). Smith and Lovat (2003:108) explain the phenomenon further by using Foucault's deconstruction of scientific realities to 'discourses of power'. One can therefore coincide with the argument of Habermas that the 'ideal speech situation' or 'ideal dialogue opportunities' serve as "a critical standard that enables us to identify and eventually dismantle the barriers which prohibit symmetrical communicative exchange" (Kearney, 1986:227; McCarthy, 1994:306-307). Unfortunately our 'communicative competence' is "deformed by the hidden interests of domination and

power" (Kearney, 1986:228). The communicative competence involves situations in which one enjoys freedom from the constraints of domination (Habermas, 1989:358).

In the context of the study dialogue reminds us of our communicative competence or ability to engage collaboratively in exposing the conflict that creates barriers between different levels of power. Dialogue as symmetrical practice has to engage in a two-way communication between policy makers and instructional designers, between unit commanders and programme managers, between course lecturers and students. The emerging discourse can then serve as narrative or as 'dialogic space' as Rule and Harley explain it in Welch and Read (2005:181). The authors continue to explain that according to Freire, "dialogue is not merely an educational technique; it is something fundamental to the process of becoming a human being". The essence of dialogue in a distance education environment are finally captured by Rule and Harley, in Welch and Read (2005:181) as follows:

> "Dialogue occurs as learners engage with course materials, facilitators and fellow learners, and relate the course content to their organisational contexts".

One can therefore now argue that the 'dialogic space' as it applies to this study, and as referred to by the authors in the previous paragraph, is rooted in the quality criterion that learners (should be) provided with a range of opportunities for real two-way communication … The need of learners for physical facilities and … participation in decision-making should also be taken into account' (Welch & Reed, 2005:32).

Dialogue is therefore a tool or mode of operation for students to critique and question, to agree and disagree, or to support or reject postulations, premises and hypotheses brought before them. This ensures their need in pursuit for the truth and to gain autonomy. In the classical Socratic dialogues, Socrates takes on the role of the critical friend, questioning his students to enable them to arrive at an understanding of their reasoning and argument (Frick, Albertyn, & Rutgers, 2010:75). Unfortunately however, one-directional dialogue is not true to the symmetrical qualities of the 'ideal dialogue' situation. One-directional dialogue is an authoritarian display of power, and exploitation of the student-teacher relationship. It contributes little to establishing an emancipating discourse on teaching and learning, and fails in maintaining an ideal learner support initiative.

In classical philosophy, dialectic is controversy, which is the exchange of arguments and counter-arguments respectively advocating *propositions* (theses) and *counter-propositions* (antitheses). The outcome of the exercise might not simply be the refutation of one of the

relevant points of view, but a synthesis or combination of the opposing assertions, or at least a qualitative transformation in the direction of the dialogue. The aim of the dialectical method, often known as *dialectic* or *dialectics*, is to try to resolve disagreement through rational discussion, and is ultimately the search for truth.

Socrates was in the habit of examining others' beliefs, at times even first principles or premises by which we all reason and argue. Socrates typically argued by cross-examining his interlocutor's claims and premises in order to draw out a contradiction or inconsistency among them. According to Plato, the rational detection of error amounts to finding the proof of the antithesis. The principal aim of Socratic activity seemed to be to improve the reasoning of his students, by freeing them from freedom from dialogue and interaction.

5.9 DISCIPLINE OR DIALOGUE

From the teaching and learning point of view discipline refers to the formal structure that one often encounters in the teaching of a subject. An example is the use of classical behavioural objectives that outlines precisely for the student what has to be done and it is one way of structuring the learning materials. It is related to the way Moore defines his transactional theory. Moore (1993, cited in Keegan, 1993:26) defined a concept of learning and teaching that, from its approach and in important characteristics, differs from the concept of dialogical learning and in some parts was even in contrast to it.

It is not open to spontaneous interventions and unforeseen developments but is closed because it is consistently planned on a targeted basis and with small steps, its time is regimented and it is uniformly controlled and evaluated (Peters, 1998:41). According to Peters (1998), the main instrument of this learning and teaching is contained in printed courses or multimedia learning packages which consist of carefully developed and optimised courses and sets learning into motion and controls it, vicariously, for students and instructors. This is the structure we normally build into our education systems. We structure the way the material has to be arranged (sequencing and ordering), we structure the objectives required for teaching and we also structure the way the students have to master the subjects' content.

Moore used the example of a teaching film for television to show just how far this structuring could go. In the film, literally every word, every action of the instructor, every minute of the available time and even the tiniest detail of the contents were laid beforehand. As a result, there is practically no opportunity for students to deviate from the learning path or to vary it to take account of individual learning requirements or spontaneous contributions (Peters, 1998:41).

The militaries are familiar with this way of doing things. By virtue of the military being autocratic, it prescribes the way teaching has to take place and at times it is formal in the way it wants to teach. It sets specific standards, targets, pass rates, entry requirements and types of examination. Therefore, teaching is structured in a 'do it my way' kind of thing. They are prescriptive in how the learning has to take place and how the outcomes have to be achieved. This refers to structure or discipline.

The SANDF, in particular, is also familiar with this way of structuring their ETD. Teaching and learning in the SANDF is structured in a disciplined way. The SANDF's ETD Process as discussed, is the way teaching and learning is structured, designed and formalised. The SANDF ETD Process uses and is based on the classical behavioural objective. It was stated earlier that the DOD regarded ETD as a systematic and planned process to change the knowledge, skills and behaviour of its people in such a way that organizational objectives were achieved (DOD ETD Project Team Report, 1997a:5). As such, the DOD/SANDF ETD Process is prescriptive, descriptive and provides a systematic approach to designing courses and learning programmes.

The ETD Process provides instructors and instructional designers with procedural framework for systematic production of instruction for traditional classroom-based learning and distance learning-based settings. Teaching and learning in the SANDF is confined to the ETD Process. Learning objectives are tied to instructional design and the ETD Process also subscribes to outcomes-based education (OBE). Evaluation consists of determining whether the criteria for the objectives had been met. This is depicted by the use of a "mark sheet" in examinations. The SANDF students and the researcher have experienced it and are used to this kind of approach.

Defining the failure of the U.S. military leadership to investigate, educate and discipline top enlisted Army men who were on trial accused by six women for sexual misconduct and 140 naval and marine officers accused of assaulting and sexually harassing 83 women, Lt Col Karen Johnson (1998:[s.p.]) stated that this is because, the military is an autocratic, closed environment that is very capable of enforcing rules and demanding discipline. This observation could be made in every spectrum and life of the military.

Wilmore (1990:[s.p.]) says that the United States Military Academy at West Point produces high standards of quality officers but observed that, there is no such thing as participatory or site based management. Administration is totally autocratic *(ibid)*. "if a professor or cadet

does not like it, too bad" *(Ibid)*. Complaining or whining is definitely not allowed. Academically, each professor at West Point used the exact same syllabi for each section of each course. There is no such thing as academic freedom *(ibid)*.

Opposed to the above is dialogue or dialectic argument that calls for a move away from the prescriptiveness of doing something. Doing and thinking becomes more open. There is a need for distance learning practitioners to debate the value of the content. This is to make certain that content is not fixed and the admission of students into the programme is also not fixed. In addition, dialogue should be able to assist distance teaching practitioners not to set assessments in a prescriptive way any more. The distance learning practitioners should move away from the disciplinary way of thinking. They should not think in terms of fixed boundaries or discipline any longer. They should use dialogue to open up options and opportunities for their learners.

According to Peters (1998:33), the concept of dialogue does not mean the written presentation of contents in simulated letters or conversations, but rather means direct and indirect oral interaction between instructors and students, in other words, an *actual* dialogue. Moore (1993) cited in Keegan (1993:24) characterises the dialogue by contrasting it with other interactions in learning and teaching:

> "A dialogue is … appreciated by participants. Each party listens … with interest to the other. Each party contributes something to its progress and referrers to contributions made by the other parties. There may be negative and neutral interactions. However, the term dialogue always referrers to positive interactions. Value is placed on the joint solution of the problem under discussion".

This concept, he continued, is committed to humanistic pedagogics for which the dialogue from person to person is of central importance in so far as it is unstructured and open-ended *(ibid)*. Dialogical learning demanded from participants, partnership, respect …consideration …understanding … and sincerity (Reinhard & Tausch 1977, in Peters 1998:33). This is why Moore (1993) argues that the more discipline or structure, and the less the dialogue, the larger the gap or transactional distance between student and instructor (Keegan, 1993:24). This results in a tension in the interplay between the two factors as illustrated in Figure 5.3.

5.9.1 Tension between structure and dialogue

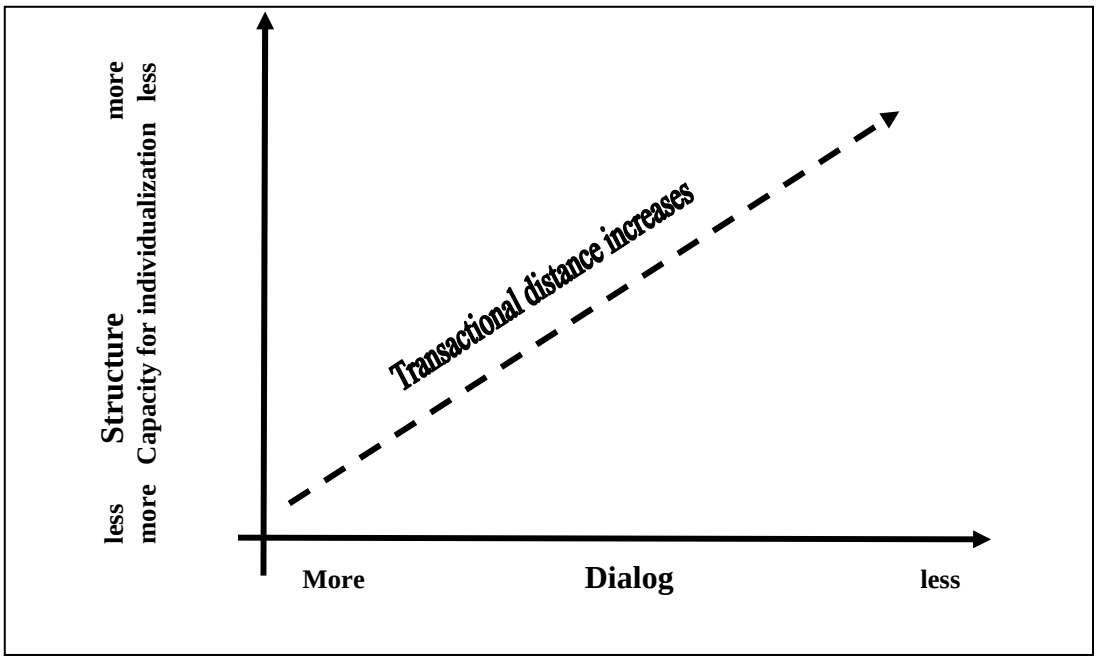

Figure 5.3: Tension of interplay between structure and dialogue (discipline) that produces transactional distance (Adapted from Holmberg, Moore & Peters, 2007:438)

According to Peters (1998:33), Moore put the dialogue in first place in his list of the constitutive concepts. The reason being that the partnership dialogue between instructors and students in the sense described presented great difficulties in teaching in practice and, in universities, the necessity in many faculties to provide for extremely large groups of students restricted the opportunity for dialogue even further (Peters, 1998:34).

In the context of this study, structure is put first because of the organisation and administration in the military environment. The organisational pattern and operating practices of a distance education establishment are based on the educational philosophy of that institution as well as some economic and political restrictions (Verduin & Clark, 1991:166). The prevailing philosophy of the military is based on its autocratic nature. Although hybrids and variations exist, Rumble (1986) cited by Verduin and Clark (1991:167) suggested that there are three potential models for organising distance education: institutional centred, student centred, and society centred.

The institution-centred model fit the military organisational structure. Hence, the administration of distance education in the military tends to be based on this model. According to Verduin and Clark (1991:167), in the institution-centred model, large numbers of adult students are handled with highly controlled and technical experiences emanating from the institution. Little student input occurred on goals, directions, and content other than the students' decision to enrol in a given course or set of courses *(ibid)*. The experts develop the

materials and learning packages and their major concern is to develop the protocols and have them delivered to students *(ibid)*. Interpersonal communication is almost nonexistent, and limited guidance is available to students *(ibid)*.

Escotet (1980) cited by Verduin and Clark (1991:167) termed this model more instruction than education because little permanent contact between student and instructor or student and student is available. Also, little socio-cultural interaction and feeling, mutual respect and dialogue, and interpersonal communication, which would make this model education, were present *(ibid)*. This model basically transferred information from the institution to the student in a rather straightforward manner. In this model, large numbers of students were served and that made it an economically advantageous way to conduct its programmes. These features caused this model to be politically expedient. Many proprietary institutions offering distance education like those in the military would fall in this category. The SANDF will have to base its decision on the evidence provided in this section.

5.10 PROGRAMME EVALUATION

The previous sections had so far discussed a number of theories around instructional design. In the current study this is treated as a theoretical framework that would serve as basis from where a conceptual framework would be constructed. Thus, in this section, the aim is to design from the theoretical framework, a conceptual framework that would be used to evaluate the distance learning programmes of the SANDF. In order to achieve this, the three sections are to be merged and fitted together to come up with components of programme evaluation; that is, components that were not suited to the combination of all theories, and hence, to distance learning programmes and those that were common to all theories, and maybe, suited to distance learning programmes of the SANDF/DOD.

First, an exposition of different instructional design models is discussed. These centred around normative and descriptive approaches which tended to apply behaviourism and cognitive learning theories. It is exposed that these approaches leaned heavily on the attainment of pedagogical objectives in education. It is also stated that the content in these approaches tended to be descriptive; and the role, aim and goal of education is to transfer knowledge to students. Instructors were the only knowledgeable transmitters of this knowledge. Instructors also received or got this knowledge from pre-written books by knowledge experts. The role of assessment in these types of approaches is also discussed. It is stated that assessment is used to determine whether the criterion of the objective has been met and these tests were normally standardised; these approaches were meant to conform to set standards. In these approaches, learning is evaluated on the basis of behavioural

objectives and the learning design is linked to learning objectives. The highly-structured content resulted in no or little dialogue. The constructive learning theory is also discussed. It came out that the constructive approach allowed students to construct their own meaning in education. They based this on their experiences and prior knowledge. It is stated that this approach did not allow prescription as it relied on cooperative and group investigation. The constructive theory is dependent on open dialogue, exploration of ideas through discussion and freedom of expression. It is also stated that the product in constructive approach is produced in a more facilitative nature than prescriptive. Self-evaluation, subjective evaluation, and evaluation of final products is allowed and encouraged. Thus, the strengths and weaknesses of these approaches came out in the discussion of these theories.

Second, Michael Moore's theory of 'transactional distance' with its three accompanying variables of instructional dialogue, programme structure and student autonomy is also discussed. The transactional distance theory exposed the importance of dialogue as being directed at improving the student in understanding and achieving his or her educational goals. The role played by structure in responding to an individual student needs and educational objectives is discussed. It is determined that a rigid structure or highly-structured medium resulted in no or little dialogue and inputs from the student. It is also pointed out that higher levels of student autonomy would necessitate lower levels of instructor control. In the discussion of the variables, 'dialogue,' specifically, came out strongly to be in support of the constructive learning theory and sometimes how it is neglected in our present teaching and learning, especially in distance learning.

Next, the role of 'dialectic' method in social theory is discussed. It is apparent that the 'dialectical' method is once the bone of contention in critical theory; among 19th, 20th centuries and contemporary philosophers. It is shown that the 'dialectic' approach is a method of examining and discussing ideas in order to reach an amicable solution. It is an exchange of arguments and counter-arguments in order to find the truth. It is stated that 'dialectic' is based on the fact that in a discussion there are two or more opposing views or sides, a continuous discussion would lead to one view being accepted by others as the truth or as valid, and the valid view or truth lead to a change of others' views thus, reaching a solution. Again, this point is supported by the constructivist theory that, in a discussion, students should be allowed to contribute their own views; that is, the exploration of ideas through discussion.

Lastly, the aspect of 'discipline' or 'dialogue' is explored. This section tried to put everything raised in these sections into perspective; trying to say or ask, in these circumstances, which is

which?" It pointed to 'discipline' as resembling the descriptive nature of some of the instructional design approaches, as found, for example, in most educational settings and militaries of the SANDF distance learning programmes. 'Dialogue,' on the other hand discussed the value of debate in content as being not prescriptive and where assessments are not fixed to certain standards. In 'dialogue,' objectives and goals were pre-selected, pre-arranged, and pre-emptive. This section, again, supported the constructive notion that promoted more open-ended learning experiences and that learning should be a process of knowledge construction.

5.10.1 Components of programme evaluation

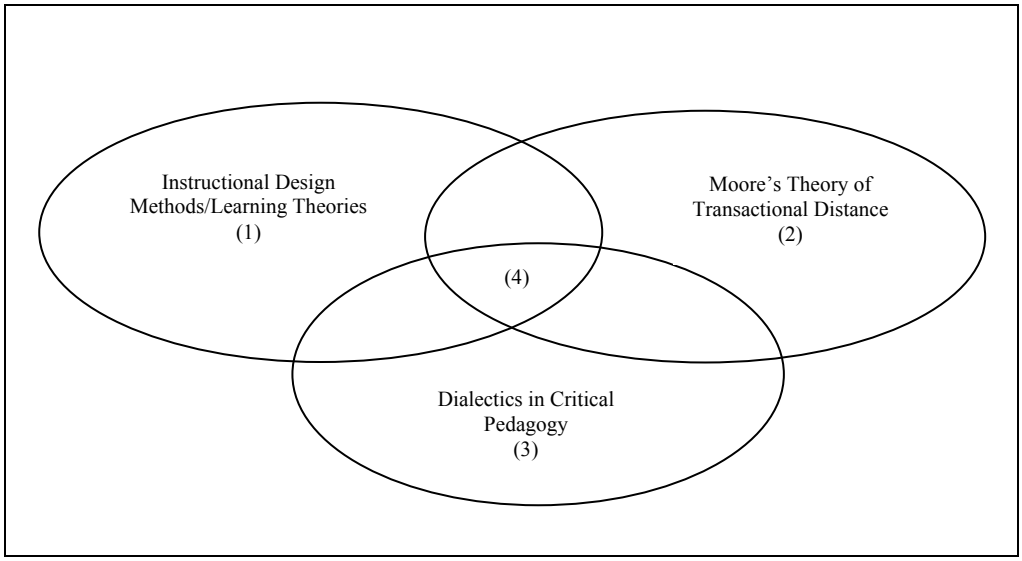

Figure 5.4: Diagrammatic presentation of Components of Programme Evaluation

As such, in the diagram, the components of programme evaluation depicted in number (1), number (2) and, number (3) were not suited to an instructional system design. Thus, it is not necessarily part of '*performance excellence'*. Amongst others, these issues included the following:

a. The descriptiveness and prescriptiveness of content.
b. The student's behaviour as objective of the instruction.
c. The learning design as linked to objectives.
d. Standard tests and conformity to standards.
e. Rigidity of the structure, evaluation methods, and objectives.
f. Highly-structured or rigidly-structured content.
g. The effectiveness of the instruction programme evaluated on the basis of behavioural objectives.
h. Evaluation as used to determine whether the criteria of the objectives had been met.
i. Little or no dialogue.
j. Transfer of knowledge to the student.

The issues in number (4) in the diagram depicted components that were common to all three theories discussed: instructional design methods (including learning theories), Moore's theory of transactional distance, and the dialectic method. Amongst others, these issues included the following:

a. Students focussed on clear goals, that is, they were goal-oriented.
b. The students determined the goals, learning experiences, and evaluation decisions of the learning programme, evaluation is based on final products, and self-evaluation is encouraged.
c. Education as a process of knowledge construction.
d. Learning focused on knowledge and application.
e. Diverse needs were catered for.
f. Students were guided to the desired behaviours.
g. Individualised instructional approach (these could take the form of facilitation, coaching, induction, counseling, etc).
h. Instructors were facilitators and a product is produced in a more facilitative nature, rather than being prescriptive.
i. Students were guided by the principles of problem-solving and decision-making.
j. Learning involved continuity and repetition.
k. Creation of appropriate conditions for learning.
l. Students constructed their learning.
m. Students interpreted information/learning based on their experiences.
n. Individual uniqueness that brought talents and skills is encouraged.
o. Dialogue: open dialogue is encouraged, supported and valued by all participants.
p. Opportunities for dialogue were built into the learning programme.
q. Student-to-student and student-to-instructor dialogue is encouraged.
r. Students were organised into groups to solve problems through exploration and discussions.
s. Structure reflected the capacity to respond to the student's needs.
t. Flexibility of structure, evaluation methods, and objectives were reflected in the learning programme.

These aspects should guide and be built into instructional design methods. In addition, the roles of independence, motivation, student support, and high levels of student control that results in lower levels of instructor control were encouraged and built into the learning programme. Finally, these components were recommended for any instructional design to

warrant ***performance*** excellence where student and instructor characteristics were taken into consideration.

5.11 CONCLUSION

This chapter discussed the theoretical framework of the study. The theoretical framework is based on Moore's theory of Transactional Distance supported by the importance of the role played by 'dialogue' and 'dialectic' method of social theory. Theories concerning these concepts were analysed and discussed. Next, contrasting, combining and linking these theories were discussed. It is stated that components that were common as well as opposed to each other in these theories could be used in programme evaluation of the SANDF/DOD distance learning programmes that are to be evaluated. It is also stated that the common components in these theories would constitute what had been termed ***performance excellence*** in the study.

CHAPTER 6

RESEARCH DESIGN, METHODOLOGY AND STRATEGIES

6.1 INTRODUCTION

A summary of this chapter: research design, methodology and strategies is furnished in chapter one. The aim of this chapter is to discuss the same in detail. This includes the reasons behind choosing such design, strategies, and methods. The sections in this chapter include the research design, research methodology, setting, sample, data-collection techniques, data analysis, data reporting, piloting, and the role of the researcher.

6.2 RESEARCH DESIGN

Applied research, which is descriptive in nature, is applicable to this study in that its purpose is to solve a specific problem rather than develop knowledge (Collins, *et al*. 2000:82). The aim of the study is to determine the requirements placed on the design of Distance Education (DE) programmes with regards to identifying the nature of discipline and dialogue and how these factors impact on student support in the SANDF. This problem is well-suited for qualitative-design approach because it is exploratory in nature and the variables and the theoretical basis of this topic is unknown (Creswell, 1994:146) According to Morse (1991:120), characteristics of a qualitative research problem are: (a) the concept is "immature" due to a conspicuous lack of theory and previous research; (b) a notion that the available theory may be inaccurate, inappropriate, incorrect, or biased; (c) a need existed to explore and describe the phenomena and to develop a theory; or (d) the nature of the phenomena may not be suited to quantitative measures.

The assumptions of qualitative designs for this study are (a) descriptive in that the researcher is interested in the process, meaning and understanding gained from the DOD distance learning practitioners; (b) fed the interest in meaning – how DOD distance learning practitioners make sense of their teaching and learning experiences; (c) concerned primarily with process, to enhance the chances of DOD distance learning practitioners to be successful in a distance learning programme; (d) inductive in that they involve the formulation of generalisations of the DOD distance learning system and building concepts and theories from details based on data collected; and (e) the researcher is the primary instrument for data collection and analysis (Merriam, 1988:19-20).

Thus, this research sought to explore and understand from the distance learning practitioners the requirements placed on the design of distance education programmes in their respective distance learning institutions with the aim of identifying the nature of discipline or dialogue

and how these factors impacted on student support and drop out in DOD and/or SANDF. According to Bless and Higson-Smith (2000:38), when the researcher prefers to ask people what they know, and how they learned what they know, he or she is applying qualitative research. These people would speak about their practical knowledge, understanding and experience of distance administering, teaching and the learning environment.

6.3 RESEARCH METHOD

6.3.1 Setting

The study is conducted at three distance education institutions in the SANDF, namely, the South African Army College (SAA), the South African Air Force College (SAAF) and, the South African School for Military Health (SAMHS). There were approximately 11 institutions in the DOD that provides instruction through the distance learning mode. In addition, the Military Academy that offered military-related tertiary qualifications, instructs in both, distance and residential settings. These institutions qualify or graduate approximately 1000 students each year. In general, permission to conduct this study was obtained from the Defence Intelligence and, specifically, permission to interview and use a tape-recorder was obtained from the distance learning authorities at the three institutions. The reason for a tape-recorder was to make accurate transcripts. A letter was sent to each Arm of Service (AoSs) ETD Director/Manager explaining the purpose of the research and requesting him/her to assist in identifying distance education instructors and students to participate in the study. The SA Navy, as an AoSs; declined to participate in the study, citing that their institutions no longer offer their learning through distance education. As such, it was not feasible to access students who had previous experience with distance learning in the SA Navy. This letter emphasised that participation would be voluntary and no inducements would be offered to participate in the study and that participants may terminate their participation in the study at any time.

6.3.2 Sample

It has been mentioned before that the South African National Defence Force is divided into four Arms of Service (AoSs): Army, Air Force, Navy and Military Health Services. The AoSs provides unique services to the National Defence Force, differing from each other. As depicted in figure 6.1, each AoSs has an institution or several institutions that provide distance learning to its corps members. They educate, train and develop their members according to their corps specifications, mustering, and functional or occupational specialisations. The DOD Distance Learning Task Force reported that these are 13 DOD learning institutions that used distance learning mode of delivery, in 2003 (Figure 6.1).

6.3.3 Distance learning institutions in the Department of Defence

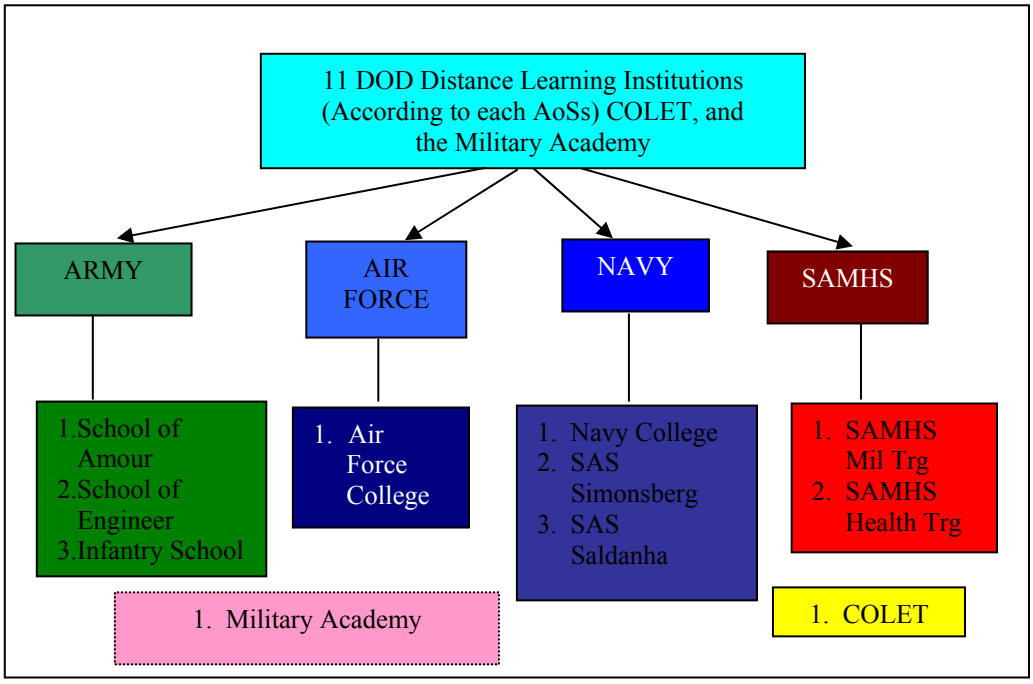

Figure 6.1: Eleven DOD Distance learning institutions, COLET, and the Military Academy

Based on the preceding data, the sampling method of this study is purposeful sampling in that it would have involved four distance learning institutions (i.e. one each from an Arm of Service), instead, only three institutions participated as mentioned earlier and are also depicted in figure 6.1. Three institutions, namely; the Army College from the South African Army (SAA), the Air Force College from the South African Air Force (SAAF), and the School for Military Training from the South African Military Health Service (SAMHS), participated in the study. The three participating institutions cited the difficulty of the availability of students if the institutions were not in school session. Instead, the researcher was allocated focused groups from the three institutions and later other individuals were sought to provide information. These focused groups and individuals comprise distance learning course managers, course coordinators and instructors or facilitators in those particular institutions. The researcher decided to replace the unavailability of student interviews with anonymous student reports normally collected by programme managers at the end of a programme

6.3.4 Data-collection techniques

First, information was obtained by means of unstructured and semi-structured interviews. This was a semi-standardised, open-ended, audio-taped and transcribed interview programme. Each of the three sets had a similar interview schedule; some of the interview questions were both similar and different. According to Struwig and Stead (2001:98), a semi-standardised interview is a combination of structured and unstructured interviews. The option for these

interviews was face-to-face, one-on-one and in-person. This allowed the researcher "control" over the line of questioning (Merriam, 1988 and Bogdan & Biklen, 1992, cited by Creswell 1994:150).

Second, personal interviews are the most versatile and flexible questionnaire method. They are a useful way of assembling large amounts of data quickly and are an especially effective way of obtaining depth in data (De Vos *et al.*, 2002:305). Struwig and Stead (2001:86-87) said that unstructured interviews are of variable length and may be employed, adapted to the situation (individual and context) and, if required, both the interviewer and interviewee could provide further explanations or clarifications. The drawbacks to interviews are that they provide "indirect" information filtered through the views of interviewees, provided information in a designated 'place', rather than the natural field setting and the researcher's presence may bias responses, (Merriam, 1988 and Bogdan & Biklen, 1992) cited by Creswell (1994:150). The other weaknesses of interviews, according to De Vos *et al.* (2002:305), are that, as interviews involved personal interaction and cooperation as essentials, participants may be unwilling to share information. Researchers may ask questions that did not evoke the desired responses from participants, the responses may be misconstrued, or even, at times, be untruthful.

Thirdly, the researcher has decided to replace the unavailability of student interviews with anonymous student reports normally collected by programme managers at the end of a programme. Permission was granted by the Department of Defence higher authority for the researcher to have access to the information. The permission letter is attached as Appendix P. The Department of Defence higher authority is the defence intelligence unit specifically designated to grant the permission. The researcher produced an official letter from the authority to the participant distance learning institutions. In turn, the participants also signed a letter giving permission to the researcher to use information contained in the student reports.

Fourthly, text or document analysis is also another procedure used for data collection. These were official documents that were compiled and maintained on a continuous basis by government institutions (Bailey, 1994:294, cited by De Vos *et al.* 2002:323-324). They included documents such as the Constitution of the Republic of South Africa, Defence Review, White Paper on Defence, DOD Annual Reports, the 1997 DOD ETD Project Team 1st and 2nd Reports, and the DOD ETD Policy document. These documents were necessary in order to study the phenomenon sought for analysis. According to De Vos *et al.* (2002), "accessing them is often a problem owing to legislation on the confidentiality of information".

This is particularly true to the SANDF since most documents bear a security classification of 'top secret', 'secrete', 'confidential' or 'restricted'. In this case, the documents accessed and used for the study were normally public information. In addition, permission to access them was sought and granted by the Defence Intelligence unit of the SANDF.

The advantages associated with document analysis according to Bailey (1994:295) and Monette *et al.* (1998 cited by De Vos *et al.* 2002:325) were that the contents of the documents were not necessarily affected by the activities of the researcher, unlike surveys where participants were aware of the fact that they were being studied while producers of documents did not necessarily anticipate the analysis of their documents at a later stage. The disadvantage is that they may not be complete, lacked standard format, or are not available at all (De Vos *et al.*, 2002:326). Lastly, literature review, known as 'secondary analysis' is also used as means of data collection. This should not be confused with a secondary analysis that is normally associated with the reworking of statistical data in quantitative designs. Secondary analysis is defined by Dale *et al.* (1988:3), Grinnell (1993: 290), Hakim (2000:24) and Rubin and Babbie (2001:385) as the reworking of already analysed data over which the present researcher had no direct control or in which he had no direct involvement. These data were gathered from the available literature and, if possible, by attending distance learning seminars and conferences organised by such organisations as NADEOSA and SAIDE. Various writers associate this method with avoiding data collection (De Vos *et al.*, 2002: 329) and saving costs and time (Babbie & Mouton, 2002:265). The key problem with this method involves the recurrent question of validity (Babbie & Mouton, 2002: 265). They said when a researcher collects data for one particular purpose; there is no assurance that, that data will be appropriate for the research interests (*ibid*).

6.4 DATA ANALYSIS

Although there are no uniformly fixed guidelines in qualitative research, Neuman (1997:328), cited by Collins *et al.* (2000:244), cautions that its flexibility should not deceive us to believe that this type of research is an easy option. Merriam (1988) and Marshall and Rossman (1989) suggested that in qualitative research data collection and data analysis should be a simultaneous process. As such crystallization was done. Crystallization sought to open the researcher to maximum experiences within the analytic style (McMillan & Schumacher, 2001:463). An intensive reflexive simultaneous analysis was done by the researcher *(ibid)*. Data analysis began during the data-collection process. Schatzman and Strauss (1973), mentioned by Creswell (1994:166), said that qualitative data-analysis primarily entails classifying things, persons, and events and properties that characterise them.

Coding as data-analysis procedure was used. Coding is the process of dividing data into parts by a classification system (Schumacher & McMillan, 1993:486). Coding represents the operations by which data are broken down, conceptualised and put back together in new ways (De Vos *et al.* 2005:340). According to De Vos *et al.* (2005), this is the central process by which theories are built from data. The analysis steps that were followed in this study were suggested by Creswell (1998) and Stake (1995), as cited in Leedy and Ormrod (2001:150). A coding procedure utilises an open coding type. This type includes the process of breaking down, examining, comparing, conceptualising and categorising data (De Vos *et al.* 2005:340). During data collection and data analysis each sub-question was organised and the specific facts about the questions were arranged in a logical and chronological order as a simultaneous process. This included classifying and categorising data. Phrased answers by the participants were coded and given the first important letter of the category, classification and/or interview question.

A mixture of sources for the classification approach, as suggested by Schumacher and McMillan (1993:487), was applied. Classification of data emanated from the research question, sub-research questions, interview questions, and data themselves. Categories that assisted clustering the data into meaningful groups were identified. This process also emanated from the research question, sub-research questions, interview questions, and data themselves. Single instances were interpreted. This entailed that specific documents, occurrences, and other bits of data were examined for the specific meanings that they might have in relation to a specific sub-question. Patterns were identified. The data and their interpretations were scrutinised for underlying themes and other patterns that characterised the individual sub-question more broadly than a single piece of information could (Bogdan & Biklen, 1992:166). Then, synthesis and generalisations were made. An overall portrait of the research question was constructed. Thus, conclusions that may have implications beyond the specific sub-question were drawn. Many separate pieces of information pointed to the same conclusion.

6.5 REPORTING THE OUTCOMES OF THE INVESTIGATION

Lofland and Lofland (1984:168) suggested that although data collection and analysis were similar across qualitative research, the way findings were reported is diverse. The added that Miles and Huberman (1984) addressed the importance of creating a data display and suggested that narrative text had been the most frequent form of display for qualitative data (cited by Lofland & Lofland, 1984:168). The report on the current study, as suggested by

Leedy and Ormrod (2001:150), includes a rationale for undertaking this research. The value of in-depth study of the research question, how it contributed to the researcher's knowledge of the topic, is explained. It also included a description of the facts related to the sub-question. Specific institutions (or AoSs) and their distance learning programmes that were studied were described, as well as the setting and any other uncontested facts about distance learning in these institutions is described. An attempt here is both as thorough and as objective as possible.

A description of who was interviewed, documents analysed and secondary analysis in terms of the literature review was made. Patterns found in the interviews were discussed. Trends, themes, personality characteristics, and so on, which the data suggested, were described. Each pattern identified is supported with sufficient evidence to accurately portray the data. If some of the data contradicted the patterns proposed, however, those were described as well. Even though this exercise is aimed at interpreting as well as reporting the data, the aim is to present as complete and unbiased an account of the interviews as possible.

Lastly, a connection to the larger scheme of things is made. The connection made here took one or more of several forms. Distance learning in the DOD institutions and Arms of Services is compared with each other.

6.6 VALIDITY AND RELIABILITY

According to Vithal and Jansen validity is an attempt to 'check out' whether the meaning and interpretation of an event is sound or whether a particular measure is an accurate reflection of what one intended to find out; and reliability is about the consistency of a measure, score or rating (1997:32-33). In ensuring internal validity, triangulation of data is employed. To achieve triangulation of the information gathered via the interviews, findings were cross-referenced with information contained in the DOD documents such as the Defence Review, White Paper on Defence, DOD Annual Reports, the 1997 DOD ETD Project Team, First and Second Reports, and the DOD ETD Policy document. In addition, other military practitioners such as officers and non-commissioned officers provided comments related to types of examinations. As such, data were collected through multiple sources to include the focus-group interviews, individual (or personal) interviews and document analysis. The participants served as a check throughout the analysis process. An ongoing dialogue regarding my interpretation of the participant's reality and meanings ensured the true value of the data. In addition, the researcher's supervisor and co-supervisor constantly checked and gave the researcher advice throughout the progress of the study.

The results obtained from the sampled participants to this study applied to all subjects in the population being studied (Bless & Higson-Smith, 2000: 80). In other words, the results of the study were subject to generalizations. This meant that the sample of the study is representative of the population in question, that is, the practice of distance education at the institutions of the DOD or SANDF. The trustworthiness of the study is measured using the validity and reliability criteria. According to Pulkkinen (2003:[s.p.]), in theory, trustworthiness, i.e. credibility and validity of qualitative research, could be considered from two different perspectives depending on the epistemological foundation of the research and the epistemologically biased arguments of the evaluation (Pulkkinen, 2003:[s.p.]).

Ideally, both of the considerations are based on the same epistemological foundation *(ibid)*. These were the external evaluation of the trustworthiness of the research, had a different epistemic basis than the analysis itself, and this could be confusing. The researcher directly influenced only the epistemological basis of the research. As a result, the basis for the evaluation is set in an epistemologically relevant context. Thus, three types of validity were applicable. These were descriptive validity that refers to the factual accuracy of the account as reported by the researcher. The reality of the situation is simulated as closely as possible. Another type, the interpretive validity, is obtained to the degree that the participants' viewpoints, thoughts, intentions, and experiences were accurately understood and reported by the researcher. Lastly, theoretical validity is obtained to the degree that a theory or theoretical explanation developed from the research study fitted the data and is, therefore, credible and defensible.

To demonstrate these measures of validity, various strategies, as described by Johnson (1997) in Pulkkinen (2003:[s.p.]), were used to promote validity in this qualitative research. The researcher as detective looked for evidence about causes and effects. The researcher developed an understanding of the data through careful consideration of potential causes and effects and by systematically eliminating rival explanations or hypotheses until the final case is made beyond a reasonable doubt. The following strategies were utilised by the researcher, first of all: comprehensive fieldwork. The researcher collected data over an extended period of time. Initially data were collected from focus-group interviews. As the need arose, the researcher collected more data through the means of personal (or individual) interviews. Low inference descriptors were also used. The use of participants' accounts is utilised and this is evidenced by direct quotations from their notes. Triangulation, that is, cross-checking of information and conclusions through the use of multiple procedures of sources, is used. Corroboration is achieved when different procedures or sources were in agreement.

To help understand a phenomenon, data triangulation in the form of multiple data sources is used. These were focus group interviews, personal (or individual) interviews, document analysis, and a literature review. In addition, to help study a phenomenon, methods triangulation in the form of multiple research methods is used. To help interpret and explain the data, theory triangulation that is, multiple theories and perspectives were used. In order to ensure reliability multiple methods of data collection and analysis were used (Merriam, 1988). Pattern matching, that is, predicting a series of results that formed a "pattern" and then determining the degree to which the actual results fitted the predicted pattern is used. As such, immersion or crystallization styles, which strengthen reliability as well as validity, involved becoming thoroughly familiar with a phenomenon, carefully reflecting on it and then writing an interpretation is done. Finally, data-collection and analysis strategies were reported in detail in order to provide a clear and accurate picture of the methods used in the study.

6.7 THE ROLE OF THE RESEARCHER

The ideal is that a quantitative researcher should be detached from the study to avoid bias (Schumacher & McMillan, 1993:15). Qualitative researchers became immersed in the situation, present or past in the phenomenon being studied (Schumacher & McMillan, 1993:15). In qualitative research, particularly, the role of the researcher as the primary data-collecting instrument necessitated the identification of personal values, assumptions and biases at the outset of the study. Perceptions about of distance student drop out in the SANDF and how this problem could be alleviated had been shaped by the researcher's personal experience.

Between 1990 and 1995 the researcher was a coordinator of Home Health Aide programme at the University of the District of Columbia in the United States of America. This program is designed to train adult students to take care of the elderly at their homes, nursing homes or other health care institutions. It is also a conventional three-month programme where learners also withdrew or dropped-out from this programme for various reasons. This programme is located within the Department of Adult Education of the University where, also during the same period, the researcher had been a student lecturer in the Adult Education graduate programme and had received his M.A. in Adult Education and M.A. in Administration of Higher Education.

The Adult Education graduate programme was delivered in a distance learning mode and, here again, adult students dropped-out of the programme for various reasons. As far as the

researcher could recall, the only mechanism by the University to alleviate the problem, was to support the students through counselling and motivation. Between 1996 and 1999 I was an ETD Staff Officer for the Service Corps in the DOD. The Service Corps was responsible for preparing members of the DOD for civilian life. These members were trained for vocational skills by various training institutions around the country. More than 50% of these students did not complete their training, again, for various reasons, but the DOD had no control of this problem.

Between the years 2000 to present the researcher had been a curriculum designer and a researcher at COLET. COLET is the first ETD institution in the DOD to be accredited by SAQA and to institute the NQF programme. It is offering SAQA's Occupationally Directed qualifications to DOD members through the distance learning mode. In 2002, the then Commandant of COLET until 2004, directed the researcher to undertake a survey on the causes of non-completion of COLET programmes, whereupon the researcher assigned another researcher at COLET to continue with the survey. This survey questions and answers are depicted in Appendix B.

During the said period, the researcher's supervisor made available to the researcher her 1999 unpublished dissertation with UNISA on Distance Learning in the DOD of which the researcher referred to mostly in the study. In 2003, the newly appointed Chief of Training Command, instituted a Task Force, under the direction of COLET Commandant, being its Chairperson, to do a thorough development work with regards to distance learning in the DOD. The researcher was also the member of this Task Force responsible for Adult Education. The Task Force was instrumental in developing the department of defence distance learning policy, which has yet to be promulgated.

The researcher believed that this exposure enhanced his awareness; knowledge and sensitivity to student drop out from learning. He brought knowledge of both working with adult distance students and the reasons of students dropping out of learning programmes in the DOD. Particular attention is paid to the reasons of adult students dropping out of distance learning programmes. Due to previous experiences of distance learning, the researcher brought certain biases to the study.

Although every effort was made to ensure objectivity, these biases may have shaped the way the researcher viewed and understood the data he collected and the way he interpreted his experiences. The researcher began this study with the perception that the nature of the

military, being an autocratic organisation, also contributed to student drop out in distance learning in the DOD. This is because the military is prescriptive in nature. The military is by nature descriptive, rules- or standard-based; objective oriented and enforced its decisions, sometimes without seeking opinions from its members.

6.8 CONCLUSION

This chapter outlined the methodology and strategies of the empirical study. It is mentioned that the research design is based on the qualitative approach. The interview as an instrument, document analysis, and; a literature review were presented as data-collection methods for the study. Three institutions from the SANDF's Arms of Service (AoSs), namely; the Army College from the South African Army (SAA), the Air Force College from the South African Air Force (SAAF), and; the School for Military Training from the South African Military Health Service (SAMHS), participated in the study. The South African Navy did not take part as their institutions were no longer conducting their studies through distance learning. The focused groups and individuals were available to the researcher to conduct interviews. These focused groups and individuals comprised distance learning course managers, course coordinators and instructors or facilitators in those particular institutions. The researcher also decided to replace the unavailability of student interviews with anonymous student reports normally collected by programme managers at the end of a programme. It has been discussed earlier in the study that the reason for focusing on the distance learning institutions and practitioners would assure the feasibility of the current research.

It is pointed out that data collection and data analysis is a simultaneous process for the purpose of this study and that generalisations had to be made. The report on this study, as suggested, included a rationale for undertaking the study. The value of an in-depth study of the research question and how it contributed to the researcher's knowledge of the topic is explained. Descriptions of the facts related to the sub-questions were also included. Specific institutions (or AoSs) and their distance learning programmes that were studied were described and compared.

Also, in order to ensure reliability multiple methods of data collection and analysis were used, which strengthened reliability as well as validity. Lastly, the role of the researcher is discussed. The researcher's perceptions about of distance student drop out and how this problem can be alleviated in the DOD have been shaped by the researcher's personal experiences.

CHAPTER 7

SUMMARY OF THE FINDINGS OF THE FOCUS GROUPS INTERVIEWS, INDIVIDUAL INTERVIEWS AND STUDENT REPORTS

7.1 INTRODUCTION

The purpose of this chapter is to give an exposition of the assembled information on focus-group interviews and individual (or personal) interviews. The focus-group and individual (or personal) interviews was composed of staff members who were either distance learning administrators or instructors. In some instances the staffs performed both functions. These functions include officer commanding (OC), course directors, course managers, course coordinators, course administrators, and instructors. Irrespective of their designation; all these participants are treated as staff in this thesis. Information from the anonymous student reports is also discussed in this chapter. The anonymous student reports are presented as student response where appropriate. The results of the interview questions conducted in the focus group and those conducted with individuals are presented on separate sections in this chapter. The results from anonymous student reports are also presented in separate sections of this chapter.

The researcher has decided to replace the unavailability of student interviews with anonymous student reports normally collected by programme managers at the end of a programme. Permission was granted by the Department of Defence higher authority for the researcher to have access to the information. The Department of Defence higher authority is the Defence Intelligence (DI) unit specifically designated to grant the permission. The researcher had to produce an official letter from the authorities to the participant distance learning institutions (See attached Appendix P).

As mentioned before, the theoretical framework of this study is based on Michael Moore's theory of 'Transactional Distance' as it is widely considered to be one of the better-developed paradigms related to the field of distance education (Clark, 1991:121). Therefore, the four main research questions and their accompanying sub-questions, as presented in chapter 1, were designed around this theory. Fifteen focus group interview questions and seven individual interview questions were then constructed out of the four main research questions. These four main research questions are also linked to each other as discussed in the chapter.

The Army College from the South African Army (SAA), the Air Force College from the South African Air Force (SAAF), and, the School for Military Training from the South

African Military Health Service (SAMHS), participated in the study. All three institutions, made available to the researcher focused groups; individuals for additional information sought, and student reports. These focused groups and individuals comprised distance learning course managers, course coordinators and instructors or facilitators in those particular institutions. The student reports were compiled by the distance learners in these institutions. Completed data gathered from these three institutions were allocated codes (Appendices F, G and H from focused groups, Appendices J, K and L from personal interviews, and Appendices M, N, and O from student reports).

The codes allocated to the Army College focus group (RFG1), as the first institution to be interviewed, were used as a baseline for codes allocated to the Air Force College (RFG2) and the School for Military Training (RFG3) in the focused-group interviews. The codes allocated to the School for Military Health Training on individual/personal interviews (IP1) were used as the baseline for codes allocated to the Army College (IP2) and the Air Force College (IP3) in the individual (or personal) interviews. The codes allocated to the Army College student reports (ACSR), were used as a baseline for codes allocated to the Air Force College student reports (AFCSR) and the School for Military Health student reports (SMHTSR).

As the researcher could not control nor determine what information student reports would contain, the National Association of Distance Education Organisations of South Africa (NADEOSA) Quality Criteria for Distance Education in South Africa of 1996 and 1998 were utilised to analyse them. It was originally the researcher's intention to use the NADEOSA criteria with the envisaged student interviews. The information contained in the student reports was assessed against the following NADEOSA criteria: 1. Policy and planning, 2. Learners, 3. Programme development, 4. Course design, 5. Course materials, 6. Assessment, 7. Learner support, 8. Human resource strategy, 9. Management and administration, 10. Quality assurance and, 11. Information dissemination.

Therefore, the responses have been classified and coded; and the codes have been categorised into groups. A brief discussion and the summary based on the provided responses follows.

7.2 FINDINGS FROM THE FOCUS-GROUP INTERVIEWS

7.2.1 Introduction

This section highlights the findings of the focus-group interviews. The interview questions were designed from the sub-questions that all work toward addressing the main research

question and depict the relationship between these questions. According to Andrews (2003:45) the subsidiary questions derive from the main question and contributory questions work toward answering the main question. The title of each table is also used as the heading of the paragraph, which depicts each interview question. The tables depict the exact answers given by the participants to each question. As alluded to before, the abbreviation for the focus group from the SA Army College is RFG1, from the SA Air Force is RFG2, and the SA Military Health Service is RFG3 in all the focus-group interviews and fifteen questions. Different answers given by the focus groups were allotted different codes and similar answers, similar codes. First, a thorough discussion of opinions of participants is presented. Secondly, a table with this information and accompanying codes is then presented. Thirdly, a discussion of the categories that emerges, where applicable, follows. Finally, a summary of opinions of the participants that emanates in terms of the categories is discussed.

7.2.2 The teaching and learning character of the institution

The teaching and learning character of the department of defence learning institutions providing instruction by means of distance education seem to resemble each other. This was evident in all the responses given by RFG1, RFG2 and RFG3, except in certain areas. All the participants seemed to have an induction period, contact sessions and residential phases. The Air Force College (RFG2) induction phase was done over a period of three days. This was also referred to as the 'study school' where the course administration, planning of studies and provision of advice took place. It was also an opportunity to inform the students how to manage their studies.

According to the Air Force College, this phase was also their first contact session where students were prepared for the distance education mode of teaching and learning. The Army College (RFG1) Induction phase lasted for a week and was utilised to "tell the students what was expected of them, in terms of their behaviour, and the learning content was explained to the students." According to the School for Military Health Training, the Induction phase referred to as "initial briefing" was utilised by providing students with books, materials, and giving them assignments that they had to hand in during the residential phase and to tell "students a bit of what was going to take place during the Contact session." Accordingly, all the participants said they utilised the residential phase differently. The Army College (RFG1) utilised the residential phase for students to hand in the Workbook that was given to them during the Induction phase. This phase was also used to conduct assessment on certain specific outcomes so that students could be more knowledgeable and more advanced in their

computer literacy. The Air Force College (RFG2) utilised the residential phase to write examinations and re-examinations given during their contact sessions.

During the residential phase, the students at the School for Military Health Training (RFG3) handed in their assignments given during the contact session. According to the participants, the students did "most of the research" and dealt with subjects the way they were supposed to deal with them. Although the School for Military Health Training did not indicate that formative and summative assessments would form part of their assessment types during data collection, these types of assessments were mentioned in their course material document. It could also be expected that these institutions provided their teaching and learning by utilising the modular and adult education approach in their distance teaching and learning.

1. What is the distance education (DE) teaching and learning character of this institution?	
Code	**Description**
TLC9	Students are able to continue their learning in their places of work where the Army College is able to continue assisting them (RFG1).
	The Air Force College utilizes diversified distance learning centres (RFG2).
TLC10	Formative assessments are applied by the Army College (RFG1) and the Air Force (RFG2).
TLC11:	Summative assessments are applied by the Army college (RFG1) and the Air Force (RFG2)..
TLC12	Students are not isolated (RFG1).
TLC13	The Army College model is called learning management system (LMS) (RFG1).
	The Air Force College model is called the individual study (IS) phase (RFG2).
TLC14	There are three structured modules (modules A, B & C) (RFG2).
	Six modules in all can be completed (or settled) in 3 years (RFG3).
TLC15	Facilitation method of teaching is used (RFG2).
TLC16	Subject specialists are utilised in DL. (RFG3).

Table 7.1: Coding system with regard to teaching and learning characters of FG1, FG2 and FG3

The synthesis of the coded transcriptions allows the opinions to be clustered into four main categories. The combination of two TLC9 codes; one of Army College (RFG1) and the other of Air Force College (RFG1) constitutes the first category which indicates that distance learning can be offered to learners at their places of work and at diversified centres. A second category that emerges from the coded transcriptions is the assessment types. These are illustrated by TLC10 and TLC11 emphasizing the fact that formative and summative assessments as the forms of assessments utilized in distance learning at these institutions. A third category that emerges from the coded transcriptions focussed on model of distance education. This category emanates from the combination of two TLC13 codes; one of Army College (RFG1) where they prefer to call their distance model the learning management system (LMS) and the other of Air Force College (RFG1) where they prefer to call their model the individual study (IS). A fourth category is the combination of two TLC14 codes;

one of Army College (RFG1) and the other of Air Force College (RFG1) which is the modular-based approach to distance learning.

The responses in table 7.1 confirms that distance learning is been practiced in some of teaching and learning institutions of the department of defence. These institutions have a tendency to give their distance learning a name, apparently, either based on the approach they utilise or the technology they apply. It is self evident that distance education in the department of defence is characterised by, among others, allowing learners to remain at the units or places of work. The distance education teaching and learning is also characterised by the application of formative and summative assessments. The modular approach to distance learning and teaching is also utilised. Although department of defence instructors are normally utilised as facilitators, subject specialists are also utilised.

7.2.3 The requirements for designing distance learning programmes

With regards to the requirements for designing distance learning programmes the participants gave different requirements. While Army College participants (RFG1) emphasised 'outcomes', they mentioned that they design their programmes with the learning management system (LMS) in mind. The LMS is a computer-based teaching and learning system. In addition, their system is based on the 'systems approach' in their instructional design as their responses of codes DDLP1, DDLP4 and DDLP5 showed. They alluded to determining needs, development, implementation and assessment of outcomes, but they were not familiar with the DOD ETD Process.

The Air Force College (RFG2) emphasised 'pathways' for students. According to RFG2, 'pathways' was a system of building a student's career step-by-step. A student should be able to progress to the next level of his or her learning career after he or she had mastered a certain level. For example the SANDF members belong to different mustering; that is, infantry, logistics, or personnel. Thus, an infantry member would always be sent to infantry courses according to his or her infantry mustering; the logistician would be sent to logistic courses according to this mustering; and so on. Hence, this would be known as a member's career pathway. The School for Military Health Training (RFG3) said they emphasised aspects such as 'assignments' and 'pre-requisite examinations' in their programme design as shown in table 7.2. This meant that students were pre-occupied with assignments and examination in their fields of specialisations as doctors, nurses, social workers, etc.

2. How are your distance learning (DL) programmes designed in this institution? (or what are the requirements for designing DL programmes?)	
Code	**Description**
DDLP1	Programme designs are based on problem assessment, redesign & implementation (RFG1).
DDLP2	Programmes are in accordance with the curriculum (RFG1).
DDLP3	Programmes include the training purpose (RFG1).
DDLP4	Programmes contain the specific outcomes (RFG1).
DDLP5	Programmes contain the exit-level outcomes (RFG1).
DDLP6:	Programmes include the assessment guidelines (RFG1).
DDLP7	Programmes contain the learning strategy (RFG1).
DDLP8	Programmes are based on the learning content (RFG1).
DDLP9	Programmes have the overview of the facilitation approach (RFG1).
DDLP10	Programmes are based on the student pathway (RFG1).
	Programmes have pathways (RFG2).
DDLP11	Programmes are designed with the LMS in mind (RFG1).
DDLP12	Programmes have references (RFG1).
DDLP13	Programme design emphasises the assignments (RFG3).
DDLP14	Programmes require a pre-requisite exam (RFG3).

Table 7.2: Coding system with regards to requirements for designing DL programmes

The synthesis of the coded transcriptions allows the opinions to be clustered into four categories. The combination of DDLP1, DDLP6 and DDLP14 constitutes the first category which indicates that the design of distance learning programmes is based on assessment guidelines. A second category that emerges from the coded transcriptions is the combination of DDLP1 and DDLP1 emphasizing the specification of outcomes in programme design. A third category that emerges from the coded transcriptions focussed on a content-based curriculum, facilitation and emphasises assignments. This category emanates from codes DDLP2, DDLP8, DDLP9 and DDLP13 which indicates the requirements for designing distance learning programmes. A fourth category that emerges from coded transcripts is the requirement to include pathways for learners. These are the combination of two DDLP10 codes; one from the Army College (RFG1) and the other from the Air Force College (FRG2).

It is noted from the above that traditional approach or system approach is used in designing distance learning programmes. But it is troubling to also note that very little or no strong emphasis to needs of the learners is being mentioned.

7.2.4 The encouragement to achieve intended learning outcomes

All the participants mentioned that they talk to students in encouraging them to achieve the intended outcomes. This was evidenced by the allocated AIO5 code. But code AIO1 denoted that the curricula in the department of department of defence distance learning institutions was designed around the achievement of specific outcomes as shown in table 7.3 above. Specific outcomes were a set of outcomes that had to be achieved at the end of a lesson or a certain module. To be found competent in the specific outcomes during the distance

education module meant that students had to demonstrate the knowledge and understanding of outcomes or set objectives during the examination or assessment. According to RFG1, their education approach was based on outcomes-based education (OBE) where knowledge of the subject matter was based on the achievement of intended outcomes (AIO3). With principles of assessment the participants meant aspects like procedures to follow when a student was not satisfied with his or her allocated marks and needed to appeal the decision (AIO4). As such, according to the participants, students were encouraged to manage their study and learning time wisely and effectively (AIO8). As much as students were encouraged to contact and communicate with each other (AIO12), they were also encouraged to contact and communicate with the instructors instead of instructors contacting the students (AIO13). It meant that it remained the responsibility of the students to contact and communicate with their instructors.

3. How are students encouraged to achieve the intended outcomes?	
Code	**Description**
AIO1	Students are found competent in the specific outcomes during the distance education module (DEM) (RFG1).
	Students must adhere to specific outcomes (RFG3.)
AIO2	Before the students attend the residential module (RM) they must be found competent in the DEM (RFG1).
AIO3	The role of outcomes-based education (OBE) is emphasised (RFG1).
AIO4	Principles of assessment are adhered to (RFG1).
AIO5	Students are told verbally of what is required from them (RFG1).
	Students are verbally encouraged to achieve the outcomes (RFG2).
	All course objectives are communicated during the initial briefing session (RFG3).
AIO6	Students are also practically shown (RFG1).
AIO7	Students are constantly reminded of the intended outcomes (RFG1).
AIO8	Students are told of time management (RFG1).
AIO9	Instructor telephone numbers that they can use to phone through out the day and also leave the message (RFG1) are given to students.
AIO10	A manual of how to study is used (RFG1).
AIO11	The programme is very flexible in that the students can arrange to write the exams at the suitable time if they have a problem (RFG1).
AIO12	Students are encouraged to contact each other (RFG1).
AIO13	Students are accommodated as long as they communicate with instructors (RFG1).
AIO14	Instructors lack to monitor the progress of students where they are in different places because of different projects (RFG1).

Table 7.3: Coding system with regards to encouragement to achieve outcomes

The synthesis of the coded transcriptions allows the opinions to be clustered into three main categories. The combination of two of AIO1, AIO3, two of AIO5, and AIO7 constitutes the first category which indicates that learners have to achieve specific outcomes. A second category that emerges from the coded transcriptions is the insistence on communication as illustrated by one of AIO5, AIO9, AIO12, and AIO13 emphasizing the fact that learners are told verbally and through telephone of intended outcomes to be achieved. A third category that emerges from the coded transcriptions focussed on the use of manuals and practical experiences to achieve the intended outcomes. This category emanates from codes AIO6 and

AIO10 which indicates that the intended outcomes and their practicality are also spelled out in the study guides or study manuals.

The outcomes to be achieved are spelled out in the curriculum as objectives to be reached. Apparently learners are reminded about the achievement and attainment of these objectives from time-to-time. It also emanated from table 7.3 that student-student interaction is also encouraged. In addition, it seems instructor-student interaction is also encouraged because student can also have access to their instructors' telephone numbers. It is alleged that all this is done with the purpose of encouraging the learners to achieve the intended outcomes.

7.2.5 The impact of transactional dialogue on students

In table 7.4, there is no mention of transactional distance and the improvement of the quality of learning by the participants. Instructor and student communication and student-to-student interaction in distance education settings were emphasised by many authors like Holmberg (1986) cited in Schlosser and Anderson (1994:11), Verduin and Clark (1991:10) Moore (1993) in Keegan (1993:24) and Willis (1994:141-142). According to all the participants, the effective impact of Transactional Dialogue was ensured by communication with the students through the use of the telephone. However, the participants interpreted the question in different ways as illustrated in the following paragraph.

The Army College (RFG1) mentioned that the success of transactional dialogue was ensured by providing the students with instructors for every subject who constantly provided feedback to students with reference to their learning progress, that students were being monitored and mentored, and students were encouraged to be dedicated as distance learning entails a lot of work (TD1). The participants at the Army College also understood the question as meaning that students have to play their part in the realisation of transactional dialogue. As a result, they mentioned that students were constantly requested to submit assignments according to set time schedules. This was then used to assess or measure each student's learning potential (TD5). In turn, the progress that resulted from this was then used for communicating with each student's home unit (TD6). In addition, it was realised that the Army College authorities were passionate about their Distance Learning system being the LMS. This was because they stated a number of times that they also sensitised the Chief of the Army about the LMS through the progress of students (TD7) and also that they requested the students to sensitise their unit commanders concerning the requirements of the LMS (TD10).

According to the participants (RFG1), the LMS forced the instructors to constantly communicate with the students while at their home units. The Air Force College (RFG2) mentioned that they understood the question as meaning 'how communication did take place with the students during the course of the programme'. Thus, they mentioned that this communication took place through the use of the telephone (TD13). In a way this was their student's appreciation of distance teaching and learning and of their instructors in ensuring the impact of Transactional Dialogue (TD14). The School for Military Health Training (RFG3) mentioned that they ensured the Transactional Distance by spelling out the communication that will take place during the course in their "Course Instruction." The way the participants understood the question was that, for instance, 'how will communication with the students happen during the distance learning programme?' Hence, their response was that all the correspondence with the students during the programme was spelt out in the "Course Instruction" document (TD15). It simply meant that what the students must expect during the distance learning programme was spelt out in this document.

4. What impact does transactional dialogue have on students, what are their comments on the impact of dialogue?	
Code	**Description**
TD1	All the subjects have an instructor (RFG1).
TD2	Instructors work day and night giving feedback (RFG1).
TD3	Students are being mentored all the time (RFG1)
TD4	There are time frames to submit some assignments through the LMS (RFG1).
TD5	The students are measured on what they submit (RFG1).
TD6	Staff sensitizes the supervisor and unit commanders about the student's programme (RFG1).
TD7	Letters are written through the Chief of the Army to communicate (RFG1).
TD8	Units are encouraged to give students timeframes for doing their work during working hours (but not the whole day) (RFG1).
TD9	Students are reminded about the target dates to submit and not to wait until the last day (RFG1).
TD10	When the students are going back to their units they must present the programme (to their Supervisors) that is created on the Milqual (Military qualification system) (RFG1).
TD11	Students are told that DL is a lot of work, they must be very dedicated (RFG1).
TD12	Staffs are committed to communicate with the students rather than having the student in the classroom the whole time (RFG1).
TD13	There is a lot of communication through the telephone; the students are not left alone to sit on their own (RFG1).
	Staffs communicate through the telephone (RFG2).
	Telephone numbers of the course coordinator who contacts all the module/subject specialist (RFG3).
TD14	Students communicate verbally their appreciation (they express their appreciation) (RFG2).
TD15	The communication that will take place during the course is spelled-out in the "Course Instruction" (RFG3).

Table 7.4: Coding system with regards to the impact of Transactional Dialogue

The synthesis of the coded transcriptions allows the opinions of the participants to be clustered into three main categories. The combination of TD1, TD2, and TD12, three of

TD13, TD14 and TD15 constitutes the first category which indicates the commitment of instructors to communicate with the learners. A second category that emerges from the coded transcriptions is the submission of assignments on target dates as illustrated by TD4, TD5, TD8, and TD9 emphasizing that learners are reminded of target dates to submit their assignments. A third category that emerges from the coded transcriptions focuses on the learners' responsibility to inform their unit commanders with regards to their involvement in a learning programme. This category emanates from codes TD6, TD7, and TD10 which indicates that learners and instructors should inform the learner's unit commander about the learner's involvement in the programme so that, in turn, the unit commander is sensitive about the learner's teaching and learning needs.

It is important to note that there was no mention or reference made to transactional distance by the participants. It could mean that the participants did not know what transactional dialogue is and it is not used. Therefore, transactional dialogue or distance is not associated with teaching and learning at these institutions. The question of teacher or instructor knowledge of distance learning intricacies comes to question. Transactional dialogue should have a positive impression on the quality of learning. The learners must recognise transactional dialogue as having meaningful impact to them.

7.2.6 Involvement of students in designing distance learning programmes

None of the three distance learning institutions in the DOD seemed to involve their students directly, in the designing of distance learning programmes. This was evidenced from the responses and coded LID1 in table 7.5. Wilmore (1990) referred to this practice in the United States Military Academy at West Point that "there was no such thing as participatory or site based management". The participants RFG1, RFG2 and RFG3 mentioned that the students were involved in this practice through 'debriefs', 'feedback' and 'SWOT analysis' only. Although these three phrases were termed differently, they meant the same thing, namely the students were asked to comment or give feedback about the 'strong', 'weak', 'opportunities', and 'the training needed' concerning the programme. Thus, the comments were utilised by the instructors or programme coordinators to improve the programme. This did not necessarily mean changing or modifying the content of a learning programme. The programme coordinators regarded this as taking into consideration the students' inputs as mentioned by RFG1 in code LID3. Sometimes the students were given a questionnaire that asks questions pertaining to the design, development and actual implementation of the programme as depicted in code LID6 by RFG2. In addition, RFG3 regarded that the student's

involvement was understood in the context of 'considering student's complaints' in their learning (LID3).

5. What is the involvement of students in the designing of DL programmes?	
Code	**Description**
LID1	Students are not directly involved in designing the DL programmes (RFG1).
	Students are not directly involved (RFG2).
	Students are not necessarily involved in designing (RFG3).
LID2	Student's debriefs assist in upgrading / changing the Army College DL system (RFG1).
	Student's involvement only comes out from the feedback or debriefs (RFG2).
	Students give their comments in the "SWOT Analysis" format at the end of the course (RFG3).
LID3	Staff takes lots of student's inputs into consideration (RFG1).
LID4	Student's complains are taken into consideration (RFG3).
LID5	Students are not part of the planners or designers (RFG2).
LID6	Students are involved through questionnaires (RFG2).
LID7	Students phone if there is something to be rectified in the manual (RFG2).
LID8	Sometimes the shortcomings are not rectified but only analysed (RFG3).

Table 7.5: Coding system with regard to the involvement of students in designing DL programmes

The synthesis of the coded transcriptions allows the opinions to be clustered into three main categories that emanate from table 7.5. The combination of three LID1 and LID5 constitutes the first category where learners are not directly involved in designing distance learning programmes. A second category that emerges from the coded transcriptions is the involvement of learners as illustrated by three LID2, LID3, LID4, and LID6 emphasizing the direct involvement of learners in advising in the issues of distance learning and teaching. This category emphasises that learners become involved only when they have to provide feedback to programme managers at the end of a programme. This is done by way of debriefs, SWOT analysis, and questionnaires. A third category that emerges from the coded transcriptions informs that learners can also phone the instructors or programme managers of any uncertainty in the manuals or study guides. This category emanates from codes LID7, and LID8 which indicates some freedom when having to be involved in the design of their learning programmes; but that the advice can or can not be. The fact that learners are not directly or indirectly involved in the designing of distance learning programmes in the department of defence confirms the discussion in section 7.3.1.2 of chapter 7. Instructors and learners are not allowed to design the learning programme or the curriculum in the department of defence. This practice confirms and signals the authoritative and prescriptive nature of approach to distance teaching and learning in the department of defence.

7.2.7 Utilisation of the DOD ETD Process

The DOD ETD Project Team institutionalised the Education Training and Development Process (ETD Process) in 1997. The Process is meant to be utilised for instructional or

programme design purposes by the DOD institutions of learning. It involved the processes of determining ETD needs, developing ETD opportunities, presenting learning, and evaluating the learning. Most DOD ETD institutions were not familiar with the DOD ETD Process, so that they do not utilise it. This was evident in the responses given by RFG1, RFG2 and RFG3 that they 'haven't seen the Process' (ETDP1) and 'do not really apply it' (ETD2) depicted in Table 7.6 above. On the other hand the Army College (RFG1) said they do problem assessment, redesign and implementation in their distance learning designing (ETDP3). The Air Force College (RFG2) mentioned that they sometimes 'do not do needs analysis correctly' because of insufficient time (ETDP4). According to the School for Military Health Training (RFG3), 'the specialised people' design distance learning programmes on their behalf. These people utilised a similar process to the DOD ETD Process (ETDP5).

6. What have been the experiences in utilising the DOD ETD Process?	
Code	**Description**
ETDP1	The staffs have not seen the ETD Process in a long time (RFG1).
	The staffs do not utilize the ETD Process (RFG2).
	There is no need for the staff to utilise the ETD Process (RFG3).
ETDP2	The staffs do not really apply it on paper, but some of it (RFG1).
	The DOD ETD Process is not necessarily done or followed formally (RFG2).
ETDP3	The staffs do problem assessment, redesign & implementation (RFG1).
ETDP4	The needs analysis is not done correctly by the staff because of the time factor (RFG2).
ETDP5	There are specialized people who design the curriculum by using a similar process but may not be called the DOD ETD Process (RFG3).
ETDP6	Some of the staff members participate in other DOD forums where they are trying to design one curriculum so that members of the DOD can be able to speak one language and do the same things (RFG3).

Table 7.6: Coding system with regard to the utilisation of the DOD ETD Process

The synthesis of the coded transcriptions allows the opinions to be clustered into two main categories. The combination of three ETDP1 constitutes the first category which indicates an uncertainty with regards to the knowledge of the DOD ETD Process; where participants cited not seeing it not utilising it and no need to utilise it. A second category that emerges from the coded transcriptions is the further uncertainty with regards to the knowledge of the DOD ETD Process as illustrated by two ETDP2, and ETDP4 emphasizing the fact that some of the DOD ETD Process is applied, not done and not done correctly. It is unfortunate that uncertainty is exhibited in table 7.6 when coming to the discussion of the DOD ETD Process. This was a promulgated ETD policy to design learning programmes in the department of defence irrespective of whether one is involved in designing or not.

7.2.8 Encouraging interaction among students

Just like the communication between instructors and student, student-to-student interaction in distance education settings was equally emphasised by many authors like, Holmberg (1986)

cited in Schlosser & Anderson (1994:11), Verduin and Clark (1991:10) Moore (1993) in Keegan (1993:24), Willis (1994:141-142). According to the Army College (RFG1) interaction among students was the skill that is taught by instructors (LI2). At the School for Military Health Training (RFG3), as indicated in table 7.7, the ability for students to express themselves is also a skill that is taught (LI2). While RFG1 and RFG2 mentioned that the Contact Session is utilised to communicate with the students and students are also encouraged to communicate with each other. In addition, the syndicate discussions are aimed at encouraging students to interact with each other (LI7).

7. What do you do to encourage students to talk to each other / What do you do to encourage or foster interaction?	
Code	**Description**
LI1	Encouragement for interaction is mentioned in all the documents and is discussed with the students all the time (RFG1).
LI2	The senior instructor discusses interaction issues with the students as part of the skills taught (RFG1).
	Students are taught certain skills to be able to express themselves (RFG3).
LI3	Staffs send students messages by e-mail through the LMS function (RFG1).
LI4	The communication is immediate and directed to students (RFG1).
LI5	The target of the contact session is to communicate with the students (RFG1).
	In the contact session, they do make some arrangements to be in contact (in touch) with each other (RFG2).
LI6	Students are informed well in advance if there is something to take note of (RFG1).
LI7	The subject is designed such that students can participate in groups (RFG1).
	Students are grouped according to their common area where they come from (in syndicate form) (RFG2).
LI8	Copy and paste is not allowed nor encouraged (RFG3).

Table 7.7: Coding system with regards to encouraging interaction among students

The synthesis of the coded transcriptions allows the opinions to be clustered into three main categories. The combination of LI1, LI3, LI6 and two LI7 constitutes the first category which indicates the means used to encourage interaction among the learners and with instructors. According to this category this is mentioned in all the documents, by e-mail and through syndicate group work. A second category that emerges from the coded transcriptions is the further utilisation of encouraging interaction during contact phase of distance education as illustrated by two of LI5 codes. A third category that emerges from the coded transcriptions focussed on interaction as a skill that is taught to learners. This category emanates from two of LI2 codes. The impression is given that there is a general lack of dialogue that fosters the interchange of ideas. The contribution of instructor and learner in dialogue or interaction is not echoed strongly.

7.2.9 Encouraging students to express themselves freely

The ability for students to express themselves was what Moore (1993) called “the encouragement of open dialogue that was supported and valued by all participants” in his

theory of Transactional Dialogue. Although all the participants said they encouraged the students to express themselves freely, they didn't explain how this was supported except RFG3 who mentioned that they applied an "open door" policy (FE1 in table 7.8). The 'open door' policy was understood to mean that students were encouraged to approach instructors or authorities if they encountered some problems and sought assistance. In addition, the School for Military Health Training (RFG3) stated that students were also encouraged to approach the Student Committee to express their concerns (FE9) although there was no policy with regards to 'encouraging students to express themselves freely' (FE11).

8. What do you do to encourage students to express themselves freely? (or how do you allow freedom of expression of learners?)	
Code	**Description**
FE1	The opportunity to speak is always afforded to the students and they love to speak (RFG1).
	The staffs constantly encourage the students to express themselves and be analytical (RFG2).
	The students are free to express themselves as the 'open door' policy is practiced (RFG3.
FE2	Small group discussions are meant for students to express themselves (RFG1).
FE3	As students mingle, they can say whatever to each other (RFG1).
FE4	During the facilitation process, the students are free to say anything (RFG1).
FE5	Debriefs every week are meant for students to participate (RFG1).
FE6	There is also feedback on the exercises the students submit through the LMS to communicate with the instructor on one-on-one (RFG1).
FE7	During distance education staff focuses on theory so that students can express themselves (RFG1).
FE8	The staffs expect that the student answers cannot be necessarily the same (RFG2).
FE9	Students have the right to approach the student committee about their problems (RFG3).
FE10	The Officer Commanding (OC) holds a meeting with a 6-member student committee once a week (RFG3).
FE11	Well, we don't have a policy that encourages that on the ground (RFG3).

Table 7.8: Coding system with regard to encouraging students to express themselves freely

The synthesis of the coded transcriptions allows the opinions to be clustered into three main categories. The combination of three of FE1 codes, FE4 and FE7 in table 7.8 constitutes the first category which indicates that students are encouraged to express themselves where opportunity is provided a curriculum is provided when learners are taught theory lessons. A second category that emerges from the coded transcriptions is the provision of small group discussions or during syndicate work and student evaluation or comments at the end of the programme as illustrated by FE2, FE3, FE5, and FE6 is regarded as the emphasis to encourage students to express themselves freely. A third category that emerges from the coded transcriptions focussed on the provision of a policy on freedom of expression. This category emanates from FE11 and indicates that there is no policy for freedom of expression. There was no mention of freedom of expression as embedded in the curriculum. This again

illustrates the lack of encouragement of dialogue in the distance teaching and learning in the department of defence.

7.2.10 Student and instructor communication across transactional dialogue

It had been mentioned earlier that communication between instructors and students played a vital role in distance education. It was also discussed in table 7.4 that the participants did not respond satisfactory to the question posed with regards to the impact this communication has on transactional dialogue. Instead, they chose to discuss how they applied it. The question as put in table 7.9 followed the same pattern. Although it was explained to the participants that this question was meant to find out how communication functioned in distance learning, taking the distance (time and space) between the students and instructors into consideration, or how communication was ensured, instead they decided to answer the way as shown in table 7.4.

In table 7.9, The Army College (RFG1) as well as the School for Military Health Training (RFG3) responded that this communication was ensured through what was expected of the students as a 'course instruction'. Both, RFG2 and RFG3 mentioned that they ensured communication across transactional distance through the use of the telephone. In addition, the Air Force College (RFG2) mentioned that they tried several other ways to ensure this communication. They said that faxing was one way of doing this and that face-to-face contact during the residential phase was another. Residential phase is when students reside at the institution to attend lectures for a certain stipulated period of time.

9. How do students and instructors negotiate communication across transactional dialogue?	
Code	**Description**
L/ICTD1	The staff informs the students of what is expected of them and what they'll be able to do as learning is an emotional thing, it's not only cognitive (RFG1).
	The staffs communicate with students through the 'Course Instruction'. (RFG3).
L/ICTD2	The staff communication with the students is clear of what is expected of them (RFG1).
L/ICTD3	The staffs encourage the students to work collaboratively (RFG1).
L/ICTD4	Authenticity is always a problem because some students do not always render their own work (RFG1).
L/ICTD5	The discussion of the problem is not done once during the introduction, it is done continuously (RFG1).
L/ICTD6	The instructors are always available after hours for students to catch-up (RFG1).
L/ICTD7	The staffs conduct face-to-face communication with the students (RFG2).
L/ICTD8	Communication is still paper-based (RFG2).
L/ICTD9	The staffs communicate with students telephonically (RFG2).
	Telephone is utilised to communicate with students (RFG3).
L/ICTD10	Communication with students is done through facsimile (RFG2).
L/ICTD11	The staffs communicate with students during the residential phase (RFG2).

Table 7.9: Coding system with regards to student and instructor communication across transactional dialogue

The synthesis of the coded transcriptions allows the opinions to be clustered into three main categories. The combination of two of L/ICTD1 and L/ICTD8 constitutes the first category which indicates that the course instruction and course manuals are used by instructors as the medium of communication with learners. A second category that emerges from the coded transcriptions is the authoritarian and prescriptive doctrine of the curriculum as illustrated by L/ICTD7 and L/ICTD11 emphasises the fact that residential phase and face-to-face contact is the opportunity of programme managers and instructors to negotiate transactional dialogue with learners. A third category that emerges from the coded transcriptions focussed on the tools used students and teachers to communicate across transactional dialogue. This category emanates from two of L/ICTD9 codes and L/ICTD10 and indicates that the telephone and the facsimile is the preferred means of communicating across transactional dialogue.

It emanated from table 7.9 that communication is mostly based on emphasising the attainment of intended outcomes. As much as communication can be done verbally, that is, face-to-face, it is also accomplished via written instruction in the teaching and learning materials. In addition, it is still paper-based and print-based. The responses of participants demonstrate that their institutions are still using a mixture of first and second generation of distance education in their teaching and learning distance education.

7.2.11 Reasons for considering distance learning

The participants gave a number of reasons why they considered distance learning as a mode of instruction for their selected courses. Both the Army College (RFG1) and the Air Force College (RFG2) mentioned that they mainly utilised the distance mode to prepare students for the Residential phase (CDL2 in table 7.10). In table 7.1 RFG1 mentioned that they utilised the Residential phase for students to hand in the assignments that were given to them during the Induction phase. They also said they utilised this phase to conduct assessment on certain specific outcomes so that students could be more knowledgeable and more advanced in their computer literacy. On the other hand, RFG2 mentioned that they utilised the residential phase to write examinations and re-examinations given during their contact sessions. It could then be postulated that the residential phase in these institutions was largely used to attain the intended outcomes, hence, according to the participants, the necessity for distance mode of learning.

The other reasons given by the Army College participants (RFG1) were to allow the student to develop at his/her own as life-long student and students to perform as was expected of them. The Air Force College (RFG2), on the other hand, said their reasons also included assisting the students to be back into the studying mode in a less controlled environment and

prepare the students to understand the Air Force. In addition, the School for Military Health Training said the reasons for considering distance mode of learning, included countering the backlog of students who needed to be qualified in certain courses and not to keep the specialised students, like doctors and nurses in class for longer periods because of their specialisations. Moreover, more students could complete their respective programmes in shorter or longer periods CDL16.

10. What are the reasons for considering DL mode in this institution?	
Code	**Description**
CDL1	The DL phase of the course or module must lead to the reaching of specific outcomes as stated in the curriculum (RFG1).
CDL2	DE is focused on getting the students to understand the Residential phase (RFG1).
	It's a very good idea, on paper, to prepare students for the Residential phase after a gap of 10 to 15 years being out of formal schooling (RFG2).
CDL3	During the Warrant Officers' module, students do the practical side and theory on DOD policies and DOD Instructions at the college for the regimental aspects on the parade ground (RFG1).
CDL4	Distance learning helps to expose the student to a larger spectrum of knowledge (RFG1).
CDL5	Students develop far better understanding and are supposed to be more skilled (RFG1).
CDL6	Students must do DE to develop as life-long learning students (RFG1).
CDL7	Students are able to optimize their potential to stay positive (RFG1).
CDL8	Distance learning enables the students to challenge themselves to what is expected of them (RFG1).
CDL9	DE is a guideline that all courses should consider to implement (RFG1).
CDL10	There are a lot of advantages in DE (RFG1).
CDL11	Students are helped to be back into the studying mode in a more or less controlled environment (RFG2).
CDL12	Distance learning is a wonderful way of preparing the student for their promotion (RFG2).
CDL13	Distance learning is used as a developmental vehicle to develop my students into becoming better, better leaders, and managers and to work with a budget (RFG2).
CDL14	Distance learning is meant to give students more information in the Air Force (RFG2).
CDL15	The reason to utilise DL was the backlog of people who had been promoted to do the course but could not because of the stagnation within the SAMHS (RFG3).
CDL16	A very small chunk of people was doing the course that resulted in the course to be very slow (RFG3).
CDL17	As members of the SAMHS are mostly professionals, like doctors, social workers, etc., it is usually not possible to keep such people in class for long; like for six months in a residential phase (if students are away from the course for 3 or more days, they are automatically withdrawn from the course (RFG3).
CDL18	Students who are professionals like doctors are always in demand or needed somewhere within the SANDF; therefore, they can finish the course in 3 years (i.e. 2 modules per year) (RFG3).
CDL19	Opportunity to include many students in the course at the same time (RFG3).

Table 7.10: Coding system with regards to reasons for considering DL

The synthesis of the coded transcriptions in table 7.10 allows the opinions to be clustered into four main categories. The combination of CDL1, CDL5, CDL6, CDL8 and CDL14 constitutes the first category which indicates attaining a specific goal is the reasons for considering distance. These are to achieve specific outcomes, becoming skilled, becoming

life-long learners and receiving more information. A second category that emerges from the coded transcriptions is to prepare learners for a certain phase as illustrated by two of CDL2 code emphasizing that distance learning is used to prepare learners for the residential phase. A third category that emerges from the coded transcriptions focussed on the career of learners. This category emanates from codes CDL12 and CDL15 and stresses that distance education is used to fast-track promotion of members of the department of defence. The fourth category that emerges from the coded transcriptions is providing learning opportunities to members of the department of defence who are not able to sit in a class or attend lessons for long hours. Some of these members cannot be away from their jobs for the duration of the programme.

It appears from table 7.10 that there are many reasons that inspire the department of defence distance learning institutions to consider utilising distance education mode of teaching and learning. Distance learning provides with many advantages and opportunities. It provides learners challenges to attain specific outcomes. It leads learners to be skilled and develop as life-long learners. It affords more learners opportunities to learn in a very short time. This, in turn, result in more learners open to other opportunities like promotion to other ranks and/or afforded other learning opportunities. The typical cost effectiveness of utilising distance learning was not mentioned by the participants.

7.2.12 Technologies applied to talk to the students

In response to the category of technologies applied to talk to the students, the participants mentioned various media. All the participants said they used the telephone (TEC1). In addition, RFG1 and RFG2 also utilised the facsimile machine (TEC2), computer (TEC3) and, lotus notes (TEC6) as shown in table 7.11. The Army College (RFG1) also used the intranet (LMS) and the laptop in their communication with the students (TEC4 and TEC5 respectively).

According to the Army College (RFG1) the Learning Management System (LMS) was the computer-based learning system that assists the College to communicate with the students inter-actively on the computer. The LMS was available via the DOD intranet; thus, all the students would access it if it was installed in their units. However, according to the Air Force College (RFG2), they relied on face-to-face contact (TEC7) and their communication with students was still paper-based (TEC8).

11. What technologies are used to talk to students in this institution when students are at a distance?	
Code	**Description**
TEC1	Telephone (RFG1).
	Telephone (RFG2).
	Telephone (RFG3).
TEC2	Fax machine (RFG1).
	Faxing (RFG2).
TEC3	Computer (RFG1).
	Computer (RFG2).
TEC4	The Intranet (LMS) (RFG1).
TEC5	Laptop (RFG1).
TEC6	Lotus Notes but not all students have access to it (RFG1).
	Lotus Notes but not all students have access to it (RFG2).
TEC7	Staffs use face-to-face contact (RFG2).
TEC8	Staffs still use paper-based (RFG2.)

Table 7.11: Coding system with regards to technologies applied to talk to the students

The synthesis of the coded transcriptions allows the responses to be clustered into four main categories. The combination of three of TEC1 constitutes the first category which indicates that the telephone is a preferred tool used to talk to students. A second category that emerges from the coded transcriptions is the use of the facsimile machine as demonstrated by two of TEC2. A third category that emerges from the coded transcriptions is the use a computer or computer programmes available to the members of the department of defence. This category emanates from codes TEC3, TEC4, TEC5 and TEC6 which indicates the use of computers, laptops, and the department of defence computer programmes such as the intranet and lotus notes.

It can be concluded from table 7.11 that the distance learning institutions in the department of defence utilises the combination of distance education generations. It can also be concluded that some of these methods are both effective and, in some instances, not effective. Some of these institutions still utilises the first generation of distance education in the form of paper-based correspondence. These institutions also use the second generation of distance education as they utilise the computers as a resource in their teaching and learning. The application of third generation of distance education by these institutions is depicted by their use of personal computers and perhaps the provision of laptops. The application of the fourth and fifth generation of distance education by these institutions is depicted by their use of the intranet and lotus notes. The intranet and lotus notes are internal communication capabilities within the department of defence. They work like the internet because they are able to provide learners with all the information with regards to the department of defence. Some of the deficiencies of these technologies and models are that they are not connected to the internet (or WWW). In addition, some of the learners do not have access to them.

7.2.13 Preparation of instructors for distance learning instruction

To prepare instructors for distance learning, the participants mentioned various means and approaches. The Air Force College (RFG2) and the School for Military Health Training (RFG3) said that they equipped their instructors with NQF Level 4 which they attained from the College of Educational Technology (COLET) as indicated in Table 7.12 (DLIP3).

According to the Army College (RFG1), some of their instructors had obtained Postgraduate Certificate in Higher Education (PGCHE) at the University of Pretoria (DLIP1) and they also attended ETD Conferences (DLIP2) to empower these instructors. On the other hand, however, the School for Military Health Training (RFG3) confirmed that their instructors were required to follow a Senior Management course (DLIP4) and other instructors have Bachelor's degrees (DLIP5).

12. How are your DL instructors prepared for DL instruction in this institution?	
Code	**Description**
DLIP1	Some instructors did a Postgraduate Certificate in Higher Education (PGCHE) at Pretoria University (RFG1).
DLIP2	Instructors attend the DOD ETD Conferences (RFG1).
DLIP3	Instructors do NQF level 4, assessor course, moderator course, and planning and design course presented at COLET (RFG2).
	Instructors do NQF level 4 presented at COLET and MentoNet (RFG3).
DLIP4	Some instructors have done the Senior Management Course (RFG3).
DLIP5	Some instructors have Bachelor of Arts (BA) degrees (RFG3).

Table 7.12: Coding system with regards to preparation of instructors for DL instruction

The synthesis of the coded transcriptions allows the opinions to be clustered into three main categories. The combination of DLIP1, DLIP4 and DLIP5 constitutes the first category which indicates that instructors have got some. A second category that emerges from the coded transcriptions is the occupationally-directed qualifications as illustrated by two of DLIP3 emphasizing the fact that department of defence distance education instructors were qualified as assessors, moderators, and programme planners and designers. A third category that emerges from the coded transcriptions focussed on these instructors attending seminars and conferences. This category emanates from the code DLIP2.

The information provided in table 7.12 suggests that distance learning instructors are adequately qualified for this mode of instruction. They qualify as instructors, assessors, moderators, and course planning and designing. Some of these instructors even have distance education-related degrees. The information provided also suggests that these instructors also attend conferences and seminars related to distance education. But it should be pointed out that from the researcher's knowledge the department of defence has a tendency of nominating members to be instructors based solely on having done a particular course themselves. This

means that these members do not necessarily undergo the required training in that particular field and hence, not necessarily qualified.

7.2.14 The impact of drop out and failure of students

Many authors observed that drop out and failure posed a problem in the teaching and learning environment of any learning system. However, the participants seemed to agree that they did not have drop outs and failures, but instead have withdrawal of students from the learning programme (DOF1) in table 7.13. On the other hand, the Army College (RFG1) added that they did not necessarily have failures (DOF2). The Air Force College (RFG2) decided to reveal that they only have a problem of students who did not hand in their tasks in terms of this question (DOF3). However, the School for Military Health Training (RFG3) cited "lack of discipline" on the part of their students. Accordingly, a student would be withdrawn from the course after he or she had been absent for three consecutive days. In addition, RFG3 mentioned that the students were also withdrawn from the course due to their lack of the required level of understanding (DOF6), but extra lessons were sometimes provided to alleviate with this problem (DOF7).

13. What has been the impact of drop out and failure of students?	
Code	**Description**
DOF1	The students withdraw from the course (RFG1).
	The Air Force College experiences withdrawals, not failures (RFG2).
	The School for Military Health Training do have dropouts or those who do not finish the course (those who do not complete a certain part of the module are withdrawn from the course and come back later) (RFG3).
DOF2	The Army College does not necessarily produce failures (RFG1).
DOF3	The Air Force College have students who do not hand in tasks (RFG2).
DOF4	Students are also withdrawn from the course after an absence of 3 days (RFG3).
DOF5	Lack of discipline of learners is another reason for not completing and thus withdrawal (RFG3).
DOF6	The School for Military Health Training has experience of students who cannot cope due to their level of understanding (RFG3).
DOF7	Extra classes are being provided to those learners who lag behind (RFG3).

Table 7.13: Coding system with regards to the impact of drop out and failure of students

The synthesis of the coded transcriptions allows the opinions to be clustered into three main categories. The combination of three of DOF1 and DOF4 constitutes the first category which indicates that learners withdraw from distance learning programmes. A second category that emerges from the coded transcriptions is the fact that distance learning institutions do not produce failures. Instead, learners simply do not complete their studies due to lack of discipline and failure to submit assignments as illustrated by DOF2, DOF3 and DOF5. A third category that emerges from the coded transcriptions focussed on learners being placed in these programmes lacking the required level of knowledge for those programmes. This

category emanates from codes DOF6 and DOF1 which indicates that some learners cannot cope with the level of these programmes and thus, frequently lag behind in their studies.

The passage on the impact of drop out and failure of students and table 7.13 seems to provide information that the department of defence does not allow drop out and failure of students. This is true to the fact that learners who do not perform well the first time are given another chance to complete their studies some other time; learners are sometimes given the opportunity over and over again, until they can finish their studies. What is of significance here is that learners are said to withdraw from programmes due to a number of reasons. Students withdraw from a learning programme due to lack of discipline like not submitting their assignments. Some students withdraw from the learning opportunity due to their level of cognitive understanding of the module or programme. Therefore, these learners are provided support in terms of extra classes.

7.2.15 Opinions with regards to the DOD distance learning policy

With regards to the utilisation of the DOD DL Policy, the participants gave various answers. All three participants said that they haven't seen the policy (DOD DLP1). In addition, RFG2 and RFG3 said that they did not use such policy even if it did exist (DOD DLP3) as indicated in Table 7.14. However, Army College participants (RFG1) cited that they thought they were in line with the policy (DOD DLP2).

14. What is your opinion about the DOD distance learning policy?	
Code	**Description**
DOD DLP1	The staffs have not seen the policy for sometime now (RFG1).
	The staffs have not seen the policy (RFG2).
	The staffs have not seen the policy (RFG3).
DOD DLP2	The staffs think they are in line with the policy (RFG1).
DOD DLP3	The staffs have not used the policy (RFG2).
	The staffs do not use the policy (RFG3).

Table 7.14: Coding system with regards to opinions about the DOD DL Policy

The synthesis of the coded transcriptions allows the opinions to be clustered into three main categories. The combination of three of DOD DLP1 in table 7.14 constitutes the first category which indicates that distance learning practitioners in the department of defence have never seen the department of defence distance learning policy. A second category that emerges from the coded transcriptions is the opinion of distance learning practitioners in the department of defence who indicated that they do not use the department of defence distance learning policy as illustrated by two of DOD DLP3. A third category that emerges from the coded transcriptions is the opinion of distance learning practitioners in the department of defence who indicated that they think they are in line with the department of defence distance

learning policy. This category emanates from code DOD DLP2. It was mentioned in chapter 6; section 6.7 that the Task Force was instrumental in developing the department of defence distance learning policy, which was still in the approval process by the higher authorities. To this date, the policy has not been formally approved. Therefore, it can be concluded that the existence of distance learning policy in the department of defence is still lacking. Hence, the distance learning practitioners in the department of defence are uncertain to whether the policy exists or not. Some of these practitioners are not certain whether they are applying the policy or not.

7.2.16 Opinions on solving the existing distance learning problems

In order to be able to solve the problems that the DOD DL institutions were experiencing, all the participants felt that they needed to talk to each other to discuss these problems (PS1). On the other hand, RFG2 and RFG3 said that they needed to constantly benchmark with others (PS2). In addition, RFG2 proposed that, in order to deal with distance learning problems, they should clearly identify these problems (PS3). This amounts to a needs analysis exercise (PS11), and to standardise (PS8) the way their distance teaching and learning was done. This included linking the phases of distance learning like Residential and Individual Study (IS) (PS5), evaluate the duration of these phases (PS6), and to look closely at the career pathway of students (PS7).

However, the participants from the School of Military Health Training (RFG3) added in their response of how to resolve the existing problems that they needed to implement distance teaching and learning correctly (PS12). In addition, they felt that the distance teaching and learning resources were important in this mode and should be looked at. They also felt that satellites (diversified distance learning centres), with the aim of carrying out certain activities, should be established (PS14-17). Importantly, they raised a concern that communication with their students in distance learning programmes should be improved (PS18).

15. How can the existing problems be solved or addressed?	
Code	**Description**
PS1	Distance learning institutions should share problems with each other (RFG1).)
	Distance learning stakeholders in the DOD should address the problems (RFG2).
	Distance learning stakeholders in the DOD should be able to talk to other role-players in the DOD (RFG3.
PS2	Problems should be benchmarked with distance learning colleagues (RFG1).
	Benchmarking is also another way to address these problems (benchmark with other AoSs) (RFG2).
PS3	The first step of the staff is to identify the problems at the College distance learning programme in order to address the needs of the Air Force (RFG2).
PS4	Formulate a dedicated Working Group from the ETD side, from Career Planning side (RFG2).
PS5	There must be a link between the IS and Res Phase (RFG2).
PS6	The duration between the IS and Res Phases must not be too long (RFG2).
PS7	This joint Pathway should also be looked into (RFG2).
PS8	Things need to be standardized (RFG2).
PS9	There should be building blocks; one should be finished before proceeding to the next (RFG2).
PS10	Alignment with Pathways (RFG2).
PS11	The staffs need to do the needs analysis (RFG2).
PS12	The implementation of DL in the SAMHS should be done correctly (RFG3).
PS13	The resources of DL are scarce or rather not there, so they need to look into the resources of doing teaching and learning in a DL mode (RFG3).
PS14	Institute SAMHS DL satellites where DL instructors can meet there only once to discuss problems they are faced with and address students' concerns (RFG3).
PS15	These satellites should also serve as central point for receiving students' assignments before students report for Contact and/or Residential phases (RFG3).
PS16	These satellites should also serve as a point where students can direct their calls about their concerns (RFG3)
PS17	These satellites should also be able to accommodate subject specialists so that students do not have to wait until their queries are answered when they report to school (RFG3).
PS18	The staff should be able to communicate with the students throughout the duration of the course (RFG3)

Table 7.15: Coding system with regards to how the existing problems can be solved

The synthesis of the coded transcriptions allows the opinions to be clustered into five main categories. The combination of three of PS1, two of PS2, PS14, PS15, PS16, and PS17 in table 7.15 constitutes the first category which indicates that distance learning institutions and practitioners should benchmark and share distance learning issues and problems respectively. A second category that emerges from the coded transcriptions is to conduct a needs analysis in order to identify problems associated with distance education in the department of defence as illustrated by PS3 and PS11 emphasizing the fact that needs analysis should be the first step in identifying problems. A third category that emerges from the coded transcriptions focussed on linking phases of distance learning delivery. This category emanates from codes PS5 and PS6 which indicates that induction, individual (distance) and residential phases should be linked. A fourth category that emerges from the coded transcriptions consist of PS7, PS8, PS9 and PS10 focussed on standardising distance learning by building the career pathway of learners. A fifth category that emerges from the coded transcriptions points to the

fact that interaction in distance learning should be promoted. The sole PS18 code emphasises the fact that communication is vital in distance education and should be maintained throughout the programme. It is interesting that distance practitioners recognised the important role played by interaction in distance education.

7.3 FINDINGS FROM THE INDIVIDUAL (OR PERSONAL) INTERVIEWS

7.3.1 Introduction

This section highlights the findings of the individual (or personal) interviews. These were added as the researcher felt it necessary to conduct such interviews to clarify some issues raised during the focus-group interviews. As in the focus group interview section, the title of each table is also used as the heading of the paragraph, which depicts each interview question. Here again, the tables depict the exact responses of participants to each question. As alluded to before, the abbreviation for the individual (or personal) interview from the South African Army College is IP1, from the South African Air Force College is IP2, and the School for Military Health Service is IP3. Different answers given by the individual (or personal) interview were allotted different codes and similar answers similar codes. After each table a discussion with reference to the interpretation of the data in the table follows.

7.3.2 The extent of the function of a training branch or section's dependence on the prescriptiveness of the subject content

The responses of three personal interviews from the School for Military Health Training (IP1), the Army College (IP2), and, the Air Force College (IP3) to the question as to what extent did the function of a training branch or section depend on the prescriptiveness of subject content seemed to resemble each; although these responses were differently phrased. For example IP1 said that their institution did not design the curriculum (DPC1), it was given to them (DPC2), and they were only allowed to design the modules (DPC3). The participant added that their Education, Training and Development (ETD) Directors specified to the training management what they needed for their students (code DPC7), they gave direction as to how training had to be done and designed (DPC9). Thus, as the curriculum was originally designed by the ETD Directors (DPC10), it was prescriptive (DPC15). According to the participant (IP1), it was the training management's duty to design the modules based on the curriculum (DPC16), as laid down by the ETD Directors; they were not allowed to change (DPC19) nor modify (DPC20) anything.

The participant from the Army College (IP2) said that when their Training branch designed their training programmes, they depended on the prescriptiveness of the subject content (DPC25). This could have meant that they received guidelines of designing their programmes

from higher authorities (DPC26). According to the participant, they only did things independently when they sequenced the logical flow of subjects (DPC31); they also did things independently when they were planning or scheduling presentations (DPC32).

On the other hand, participant IP3 said that as instructors, they were only allowed to think independently as long as the outcomes of the unit standards had been addressed (DPC33), and that any additional information that the instructor considered to be of assistance to the student may be included. The researcher interpret the response given by the participant from the Air Force College (IP3) as that their training branch would also depend on the prescriptiveness from higher authorities in designing their programmes.

1. To what extent does the function of a training branch or section depend on the prescriptiveness of subject content?	
Code	**Description**
DPC1	The staffs do not design the curriculum (IP1).
DPC2	The curriculum is given to the staffs (IP1).
DPC3	The staffs only design the modules (IP1).
DPC4	The curriculum is designed for the staff (IP1).
DPC5	The curriculum is prepared for the staff (IP1).
DPC6	The staffs are given the guidelines to design the modules (IP1).
DPC7	The Directors specify to the training management what they need for their students (IP1).
DPC8	The student doctors, the nurses, the social workers, have their curricula designed according to their specific needs from their Directors (IP1).
DPC9	The Directors are supposed to give the training management direction as to how training must be done and designed (IP1).
DPC10	The Directors design the curricula (IP1).
DPC11	A curriculum gives the staffs overall picture of what is supposed to take place in the learning (IP1).
DPC12	The curriculum generalizes the way things are supposed to be done (IP1).
DPC13	The curriculum is the overall learning expectation of Directors (IP1).
DPC14	The curriculum is the document in which the Directors say this is the way we want things to look like (IP1).
DPC15	The curriculum is prescriptive (IP1).
DPC16	It is the duty of the staffs to design modules according to different levels from the curriculum (IP1).
DPC17	There's no differentiation too much because the content of the modules is based on the curriculum (IP1).
DPC18	The staffs take the planning of the subject from the curriculum as it is (IP1).
DPC19	The staffs do not change anything from the curriculum (IP1).
DPC20	The staffs do not modify anything from the curriculum (IP1).
DPC21	The staffs do not have powers to modify or change anything on the curriculum or from the content (IP1).
DPC22	A certain part of the curriculum is put on a certain part of a certain course as content as it is (IP1).
DPC23	It is like a doctrine to the staffs (IP1).
DPC24	There is nothing the staff can change in a doctrine (IP1).
DPC25	The branch function depends on the prescriptiveness of the subject content (IP2).
DPC26	When the staffs design a learning programme, there are guidelines from the higher HQ (IP2).
	The guidelines stipulated by higher authority must be included in the curriculum (IP3).
DPC27	The staffs need to adhere to the SA Army doctrine (IP2).
DPC28	The staffs think independently when benchmarking (IP2).
DPC29	The staffs align our subject contents with what they have in terms of capabilities of all Corps of the SA Army (IP2).
DPC30	For each and every module the staffs compile debriefs from student side and also instructors (IP2).
DPC31	The staffs think independently only in sequencing the logical flow of subjects (IP2).
DPC32	The staffs think independently in planning or scheduling of presentations (IP2).
DPC33	An instructor may think independently as long as the outcomes of the unit standards have been addressed (IP3).
DPC34	Any additional information that the instructor considers to be of assistance to the student may be included (IP3).

Table 7.16: Coding system with regard to what extent the function of a training branch or section depends on the prescriptiveness of subject content

The synthesis of the coded transcriptions allows the opinions to be clustered into three main categories. The combination of DPC11, DPC16 and DPC18 constitutes the first category which indicates that a curriculum is provided from where further dissemination is done. A

second category that emerges from the coded transcriptions is the authoritarian and prescriptive doctrine of the curriculum as illustrated by DPC1, DPC2, DPC4, DPC5, DPC6, DPC8, DPC10, DPC13, DPC14, DPC15, DPC19 DPC20, DPC21, DPC23, DPC24, DPC25, DPC26, and DPC27 emphasizing the fact that programme managers cannot and are not allowed to change the supplied curricula. A third category that emerges from the coded transcriptions focussed on programme managers' responsibility to develop modules from the curriculum. This category emanates from codes DPC3, DPC7, DPC12, DPC17, DPC28, DPC30, DPC31, DPC32, DPC33, and DPC34 which indicates some freedom when having to design their learning tasks and lesson plans according to the curricula. Therefore, it emerges from table 7.16 that the authoritarian and prescriptive doctrine of curricula is provided by the directors to managers from where they have the freedom to design the modules.

7.3.3 Freedom allowed in the selection of content

The question with regards to how much freedom was allowed when coming to the selection of content in the teaching and learning of distance students was derived from the previous question; hence, the participants' responses emanated from their previous answers. For instance, the participant from the School for Military Health Training (IP1) mentioned that "what ever we took from the curriculum, was prescribed by the ETD Director, to use for their own good, must look as it was" (FSC1), there's no way that they were allowed to change or modify anything (FSC2), and they were not allowed to select the content of their own (FSC3) as it was fixed (FSC4). On the same question, the Army College (IP2) said that to support the achievements of the outcomes, "we started to consider the needs analysis for the learning programme" (FSC5), and, "consider designing a programme according to the client's needs and profile of the product" (FSC6). According to the Air Force participant (IP3) the content was not restricted only by the outcomes (FSC10), and "the instructor may include additional information that will assist the student" (FSC11).

2. How much freedom is allowed when it comes to the selection of content to support the achievement of the outcomes?	
Code	**Description**
FSC1	What ever the staffs take from the curriculum to use for our own good, must look as it is (IP1).
FSC2	There's no way that the staff can change or modify it (IP1).
FSC3	The staffs are not allowed to select the content of their own (IP1).
FSC4	The selection of the content is fixed (IP1).
FSC5	To support the achievements of the outcomes, the staff to consider the needs analysis for the learning programme (IP2).
FSC6	The staffs consider designing a programme according to the client's needs and profile of the product (IP2).
FSC7	In the achievement of the outcomes, the staff considers the understanding of the outcome-based education (IP2).
FSC8	Training or teach towards outcomes and assess against outcomes (IP2).
FSC9	In terms of achieving outcomes, the staff adheres to the principles of assessment (IP2).
FCS10	The content is not restricted only by the outcomes (IP3).
FCS11	The instructor may include additional information that will assist the student (IP3).
FCS12	The additional information may also enhance the transfer of learning (IP3).
FCS13	The additional information may boost the learning experience (IP3).

Table 7.17: Coding system with regard to how much freedom is allowed when it comes to the selection of content to support the achievement of the outcomes

The synthesis of the coded transcriptions in table 7.17 allows the opinions to be clustered into three main categories. The combination of FSC1, FSC2 and FSC3 constitutes the first category which indicates that content must look as provided in a curriculum by directors and cannot be changed or modified. A second category that emerges from the coded transcriptions is the fixed nature of the content as illustrated by FSC4, FSC5, FSC6, FSC7, FSC8 and FSC9 emphasizing the fact that programme needs analysis and achievement of outcomes have been pre-determined. A third category that emerges from the coded transcriptions focussed on programme instructors' responsibility to enhance the learning. This category emanates from codes FSC11, FSC12, and FSC13 which indicates some freedom when having to add some information to the content to assist in the achievement of outcomes.

7.3.4 Deviation that is allowed from a fixed norm

Table 7.18, dealing with the question of how much deviation was actually allowed from a fixed content, does not necessarily deviate from the previous two questions; hence, the participants' responses resembled those of their previous answers. For instance, participants from the School for Military Health Training (IP1) mentioned that, in writing the content, the only deviation might be the uniqueness of what was applicable to the SA Military Medics as opposed to the SA Army or SA Air Force. In addition, the curriculum had been written officially by the South African Military Health Service (SAMHS) ETD Director as their

expectation (DAFC4) and given to the training management to use (DAFC6). Otherwise, from the participant's perspective, deviation from a fixed content was not allowed.

According to the participant from the Army College (IP2), a fixed norm allowed the training staff and instructors to stick to the learning strategy that the needs analysis required (DAFC7). Thus, there was no deviation as such from a fixed norm (DAFC8). The participant from the Air Force College (IP3) mentioned that too much deviation might mean that information from a higher level was included (DAFC11). He went on to say that too much deviation might not be necessary (DAFC12). In addition, too much deviation may not address the outcomes (DAFC13). Thus, too much deviation may be too high for the prescribed outcomes (DAFC14).

3. How much deviation is allowed from a fixed norm?	
Code	**Description**
DAFC1	Within that curriculum, there are spaces that are being given that there's nothing that has been written on (IP1).
DAFC2	Written on because of uniqueness of a particular course (IP1).
DAFC3	So, the Medics also have their own uniqueness they need to put in that empty space (IP1).
DAFC4	Expectations from Directors to the staff as trainers (IP1).
DAFC5	The modification may happen in this scenario (IP1).
DAFC6	It is being given by the Director that is written officially as it is in a curriculum (IP1)
DAFC7	A fixed norm allows the staff to stick to the learning strategy that the needs analysis requires (IP2).
DAFC8	There's no deviation as such (IP2).
DAFC9	The instructor just needs to keep in mind what are the outcomes of the Unit Standard (IP3).
DAFC10	The instructor just needs to keep in mind the level at which the Unit Standard is written (IP3).
DAFC11	Too much deviation may include may the information of a higher level is included (IP3).
DAFC12	Too much deviation may not be necessary (IP3).
DAFC13	Too much deviation may not address the outcomes (IP3).
DAFC14	Too much deviation may be too high for the prescribed outcomes (IP3).

Table 7.18: Coding system with regard to allowing deviation from a fixed norm

The synthesis of the coded transcriptions allows the opinions to be clustered into three main categories. The combination of DAFC1, DAFC2, DAFC3, DAFC4 and DAFC5 constitutes the first category which indicates that deviation is only applicable to the uniqueness of a particular course where directors would expect the staff or instructors to fill the existing gap. That is change or modification could only happen within the confines of set norm or norms. A second category that emerges from the coded transcriptions is the prescribed curriculum is regarded as official fixed norm as illustrated by DAFC6, DAFC7, DAFC8, DAFC9 and DAFC10 emphasizing the fact that programme managers cannot and are not allowed to deviate from official supplied norm which is a curricula. A third category that emerges from the coded transcriptions allows deviation only from the higher authority's approval. This

category emanates from codes DAFC11, DAFC12, DAFC13 and DAFC14 which indicates that deviation could only be accommodated with higher authorities' approval as it may not necessary addressed the prescribed outcomes.

7.3.5 Emphasis of learning tasks in the study guides

Based on the question in table 7.19 the participants from the School for Military Health Training (IP1) reported that students were given assignments that they had to do from the study guides. The students must discuss these tasks in their syndicates. Syndicates were divided according to their groupings into their specific areas (LTSG8 and LTSG11). Therefore, the tasks in the study guides were discussed and completed by students in syndicate form (LTSG4). According to the participants, the students were assisted by the instructors in these discussions (LTSG2).

According to the Army College participant (IP2), their study guides contained the tasks that have to be completed by the students (LTSG19). Actually, these study guides were based on the tasks that would be given to students to perform. The participant said the importance of the study guides were to direct the students to the approach to follow for learning in a proper way. In addition, the study guides were designed to reach the outcomes. The participants from the Air Force College (IP3) mentioned that the task settings and the study guides worked hand in hand. However, the student needed to complete the task by utilizing the study guides. These study guides are designed in such a way that the students could complete the task step by step. If the student experienced difficulties in completing the task the last resort would be to contact the instructor who was coordinating the process. The learning tasks were included in the study guides normally after each chapter in the specific module. These learning tasks also determined whether the student had mastered that section of the subject before moving onto the next section or chapter.

4. How does the DOD emphasise learning tasks when students have to master outcomes from the study guides?	
Code	**Description**
LTSG1	What the staff do in their environment mostly they give the students assignments that they must go and do (IP1).
LTSG2	The staff show and discussed learning tasks with the students (IP1.)
LTSG3	The staff discuss with learners in syndicates (IP1).
LTSG4	The learners must discuss the assignments as given by the instructors in their syndicates (IP1).
LTSG5	During the discussion in the class everybody understands broader (IP1).
LTSG6	The learners' discussions even broaden understanding of instructors (IP1).
LTSG7	The instructors come with our Standard Operating Procedures (SOPs) (IP1).
LTSG8	The staffs identify learners according to their groupings (IP1).
LTSG9	The staffs identify these tasks according to their specific areas (IP1).
LTSG10	The staffs usually divide learners according to those roles (IP1).
LTSG11	The staff groups learners according to their specialisations (IP1).
LTSG12	The importance of the study guides is to direct the students to the approach to follow for learning in a proper way (IP2).
LTSG13	This is the measure for competency by the student in a learning programme (IP2).
LTSG14	Study guides are designed to reach the outcomes (IP2).
LTSG15	The study guides are based on the tasks that will be given (IP2).
LTSG16	The study guides are not always the same (IP2).
LTSG17	The study guides are based on the debriefs and guidance of the students (IP2).
LTSG18	After the learning programme, some of the comments given by the students are altered (IP2).
LTSG19	These study guides have the tasks (IP2).
LTSG20	It is a sort of assessment confirmation (IP2).
LTSG21	The task settings and the study guides work hand in hand (IP3).
LTSG22	A student needs to complete the task by utilizing the study guide (IP3).
LTSG23	The study guide is designed is such a way that the student can complete the task step by step (IP3).
LTSG24	If the student experiences difficulties in completing the task the last resort would be to contact the instructor who is coordinating the process (IP3).
LTSG25	The learning tasks are included in the study guides normally after each chapter in the specific module (IP3).
LTSG26	The learning tasks also determine if the student has mastered that section of the subject before moving onto the next section or chapter (IP3).

Table 7.19: Coding system with regard to how the DOD emphasizes learning tasks when students have to master outcomes from study guides

The synthesis of the coded transcriptions in table 7.19 allows the responses of the participants to be clustered into three main categories. The first category emanates from the ordering of the transcriptions LTSG1, LTSG2, LTSG3, LTSG4, LTSG5, LTSG6and LTSG24 that indicate that the learning tasks in the study guides are discussed with the learners to achieve the outcomes. A second category that emerges from the coded transcriptions is the grouping of learners according to their roles, specific areas and specialisation as illustrated by LTSG8, LTSG9, LTSG10, and LTSG11 emphasizing the fact that learners are grouped according to these areas to discuss and achieve the learning tasks in the study guides. A third category that emerges from the coded transcriptions focussed on accompanying study guides with learning tasks. This category emanates from codes LTSG12, LTSG14, LTSG15, LTSG16, LTSG17, LTSG19, LTSG23, LTSG25, and LTSG26. This category indicates that some learning tasks are found in the study guides. Therefore, it emerges from table 7.19 that the learning tasks are

emphasised in the study guides where learners are grouped into different areas and instructors communicate these tasks to learners.

7.3.6 The authenticity of the learning tasks in the learning guides

As also explained to the participants, the question as posed in Table 7.20 was to find out how they ensured that the study guides were authentic in ensuring student participation or corporation, or how students' participation, corporation, collaboration and, maybe, their attention is encouraged in the study guides through their learning tasks. How were they supported? Again, the participants responded differently on this question and according to their understanding of it. Responding on this question, the participant from the School for Military Health Training (IP1) said this caused a serious problem of 'cut-and-paste'. This was when a student copied the work of a student that has done the course before. Although the students were given different scenarios, they were similar but there were changes and if you don't know, you may not discover them. However, instructors cannot be absolutely sure when the students were on their distance learning phase.

Responding to the question, the participants from the Army College (IP2) mentioned that an instruction about authenticity was presented during distance learning and was also emphasized in the assessment instructions. He went on to say that the assessment committee does 'spot-checks' on the schoolwork submitted by the students. The 'spot-checks' were actions performed by the instructors on the work submitted by the students to see if it was not duplicated. According to the IP2, the roles of the DS on a facilitation problem were presented to the students, and the roles of a student with a facilitation problem were also presented. In addition, the authenticity of these tasks was confirmed during the syndicate room discussions. Thus, where the instructor was going to facilitate, every student was going to be given the chance to say something.

Responding to the question, the participant from the Air Force College (IP3) mentioned that, in certain subjects, the same study guides were utilized. The instructor has first-hand feedback with regards to the use of the study guide. However, when a programme was completed the students were requested to give feedback with regards to their experience during a particular programme. In addition, the students were encouraged to share inputs and ideas with the instructors and programme managers.

5. How is the authenticity of these learning tasks designed in order to provide students with authentic learning experiences when having to master the outcomes?	
Code	**Description**
SGA1	The staff have a serious problem of 'cut-and-paste' by students (IP1).
SGA2	The staffs usually give the learners one and the same scenarios (IP1).
SGA3	The staff now give the learners different scenarios that are similar, however, there are changes and if you don't know, you may not discover them (IP1).
SGA4	A student copies the work of another student that has done the course before (IP1).
SGA5	The staff cannot be 100% sure when the learners are in a distance learning phase (IP1).
SGA6	Lecture for authenticity is presented during distance learning and it also emphasizes the assessment instructions (IP2).
SGA7	The assessment committee performs spot checks on products (IP2).
SGA8	Before the staffs introduce outcomes-based education, they also mention the facilitation (IP2).
SGA9	The staffs give the learners the roles of the instructor on a facilitation problem (IP2).
SGA10	The staffs also give learners the roles of a student on a facilitation problem (IP2).
SGA11	The staffs confirm this by doing the SRDs (syndicate room discussions) (IP2).
SGA12	When the instructor facilitate, all the learners are given the chance to say something (IP2).
SGA13	In certain subjects the same study guides are utilized (IP3).
SGA14	The instructor has first hand feedback with regards to the use of the study guide (IP3).
SGA15	When a programme is completed the students are requested to give feedback with regards to their experience during the particular programme (IP3).
SGA16	The student is encouraged to share inputs and ideas with the instructors and programme managers (IP3).

Table 7.20: Coding system with regard to how the authenticity of these learning tasks is designed in order to provide students with authentic learning experiences when having to master the outcomes

The synthesis of the coded transcriptions allows the opinions to be clustered into three main categories. The combination of SGA1, SGA2, SGA3, SGA4 and SGA5 constitutes the first category which indicates that exact copying (cut-and-paste) of products by learners does exist. This practice compromises the authenticity of learning tasks and learning programme. A second category that emerges from the coded transcriptions is that, to ensure the authenticity of a learning task, thorough spot-checks are done by the staff on the learners' products during assessment as illustrated by SGA6, SGA7, SGA8, SGA9 and SGA10 emphasizing the fact that programme instructors and managers inform the learners concerning the authenticity of the learning tasks. A third category that emerges from the coded transcriptions focuses on the use of the learning guides. This category emanates from codes SGA13 and SGA14 which indicates that learning guides are utilised on for the learning tasks.

7.3.7 Encouragement to communicate or debate answers freely

The question as posed in table 7.21 below was also explained as, what was the policy or comments in encouraging students to communicate freely? It was also further explained as, to what was the policy on freethinking in learning or was there such a policy at the institution that encouraged freethinking? According to the participant from the School for Military

Health Training (IP1), there was absolutely nothing on that (PFC1). The participant went on to say that no one was there to provide them with policies on these issues (PFC3). Hence, there was no guideline or policy provided concerning this issue (PFC5).

According to the participant from the Army College (IP2) with regards to the same question, the learning and teaching was continually to encourage the students to participate in learning (PFC9). Facilitation allowed students to debate and express their views (PFC10). Students were given an opportunity and encouraged to talk freely (PFC14 and PFC15). In addition, the Syndicate Room Discussions were used to encourage those who were not prepared to talk or were naturally quiet people (PFC16).

The participant from the Air Force College (IP3) said, "There was no official policy that stated students must communicate freely" (PFC1). "As far as I know, students are not encouraged to communicate freely," he added. The participant also added that, students in all training institutions thought that if they spoke freely, that might have a detrimental effect on their results. However, students were encouraged to 'think out of the box'. This meant that despite the absence of such a policy, students were still encouraged to think independently as opposed to be told how to think.

6. How important is it for the DOD to encourage and allow students to communicate their answers and/or debate freely?	
Code	**Description**
PFC1	There's absolutely nothing on that (IP1).
	There is no official policy that states students must communicate freely (IP3).
PFC2	There are policies that the staffs are supposed to have as trainers that have been given by the Directors (IP1).
PFC3	No one is there to provide staff with policies of these on these issues (IP1).
PFC4	The fact that the school is not registered or accredited with the sector training authority (Seta) is a problem (IP1).
PFC5	There is no guideline or policy on free communication by learners (IP1).
	There is no official policy that encourages students to communicate freely (IP3).
PFC6	The staff cannot get a certain area where they can say there is a policy on student free communication (IP1).
PFC7	The staffs have got some pieces and bits of policies on these things (IP1).
PFC8	Some are designed for the issue at hand like the policy on harassment, sexual harassment (IP1).
PFC9	The learning is conducive in encouraging the students to participate themselves at learning (IP2).
PFC10	Facilitation allows students to debate and express their views (IP2).
PFC11	Video lessons make students communicate freely by demonstrating (IP2).
PFC12	The staff is aligns the outcomes in their analysis to have the relevant unit standards (IP2).
PFC13	The policy of the ETD also includes all these learning issues (IP2).
PFC14	The staffs give learners a free way of talking (IP2).
PFC15	The staffs also encourage communication among the learners (IP2).
PFC16	The syndicate room discussions encourage the learners who are not prepared to talk; like the quiet people (IP2).
PFC17	The general training policy is to gain feedback from the students (IP3).
PFC18	Students in all training institutions think that if they speak freely that it has a detrimental effect on their results (IP3).
PFC19	Students are encouraged to "think out of the box" (IP3).
PFC20	Training is dynamic (IP3).
PFC21	Training is not stagnant and rigid (IP3).

Table 7.21: Coding system with regard to how important it is for the DOD to encourage and allow students to communicate their answers and/or debate freely

The synthesis of the coded transcriptions allows the opinions to be clustered into four main categories from table 7.21. The combination of two of PFC1, PFC2, PFC3, two of PFC5 and PFC6 constitutes the first category which indicates that there is no policy, guideline or instruction from the directors to managers on learners' free communication. A second category that emerges from the coded transcriptions is the problem of accreditation of some of the learning programmes as illustrated by PFC4, PFC7 and PFC8 emphasizing the fact that there was no policy on free communication programme managers invent pieces of policies dealing with the overall conduct of learners. A third category that emerges from the coded transcriptions focussed on encouraging learners to freely engage academically. This category emanates from codes PFC9, PFC10, PFC11, PFC12, PFC14, PFC15 and PFC19 which indicates some freedom to debate academic issues freely. A fourth category that emerges from the coded transcriptions indicates that, as much as the ETD policy should address free

communication on academic discourse, sometimes learners are afraid of further repercussions of victimisation by the authorities as depicted by PFC13, PFC17 and PFC18.

7.3.8 The consideration of students' answers to master the outcomes

The question as posed in table 7.22 was also asked differently as follows: "were students allowed to think 'outside the box', whether in oral or written work as in exams or in discussions when, of course, they have to master the intended outcomes? Again the responses from the three participants were different. The participant from the School for Military Health Training (IP1) said that the students' answers were based on the 'mark sheet' as a marking template (TOB1). This meant that if a student's answer was not the same as on the 'mark sheet' the answer was in correct (TOB2). The participant also mentioned that the DOD did not use the moderators as much as other Departments in marking the students' examinations (TOB3). In addition, an instructor in the DOD designs, instructs, evaluates, marks and moderates the work of his or her students at the same time as he or she pleases (TOB4).

The participant from the Army College (IP2) said that, to achieve the intended outcomes, his institution conducted a process of student preparation (TOB5). Students were also advised not to copy directly from the textbooks when completing assignment (TOB6). The participant meant that students were not allowed to take words 'as is' from the book (TOB7). "The meaning and understanding was important here," he added. The participant also said that, "in the end, a feedback was given for better development and improvement."

The participant from the Air Force College (IP3) said that in certain tasks there was a set memorandum whereby the task was assessed (TOB10). In other tasks there were set objectives that the instructor would like to achieve (TOB11). The participant also said that students may broaden their discussion on a particular subject just as long as the objectives of the task had been met. In addition, the students may air their opinion on a particular subject just as long as the objectives of the task had been met (TOB13). However, he added, students were not expected to study the subject content off by heart (TOB14). Thus, the students were encouraged to "think outside the box" (TOB15). Again, this meant that students were still encouraged to think independently as opposed to be told how to think.

7. How would the students' answers be considered when having to determine that they have mastered the outcomes?	
Code	**Description**
TOB1	The instructors use the mark sheet as their marking template (IP1).
TOB2	If a students' answer is not according to the mark sheet, therefore the answer is considered incorrect (IP1).
TOB3	The DOD does not use the moderators as much as other departments (IP1).
TOB4	An instructor in the DOD designs, instructs, evaluates, marks and moderates the work of the students as the instructor pleases (IP1).
TOB5	A process of student preparation is conducted by the instructors to achieve the intended outcomes (IP2).
TOB6	Students are also advised by the instructors not to copy directly from the textbooks when completing assignment (IP2).
TOB7	Instructors do not allow students to use words from a book as they are (IP2).
TOB8	The meaning and understanding is important (IP2).
TOB9	A feedback is given to the students for better development and improvement (IP2).
TOB10	In certain tasks there is a set memorandum whereby the task is assessed (IP3).
TOB11	In other tasks there are set objectives that the instructor would like to achieve (IP3).
TOB12	The students may broaden their discussion on a particular subject just as long as the objectives of the task have been met (IP3).
TOB13	The students may air their opinions on a particular subject just as long as the objectives of the task have been met (IP3).
TOB14	Students are not expected to study the subject content off by heart (IP3).
TOB15	The student is encouraged to "think outside the box" (IP3).

Table 7.22: Coding system with regard to how would the students' answers be considered when having to determine that they have mastered the outcomes

The synthesis of the coded transcriptions allows the opinions to be clustered into four main categories. The combination of TOB1 and TOB2 constitutes the first category which indicates that a marking sheet or template is used by the instructors to mark students' exams or assignments. A second category that emerges from the coded transcriptions is that instructors are charged with lecturing, assessing, evaluating and moderating to determine if learners have mastered the learning outcomes as illustrated by TOB3, TOB4 and TOB5 emphasizing the fact that programme instructors fulfil these tasks on behalf of students. A third category that emerges from the coded transcriptions focuses on providing learners with feedback on the achievement of objectives. This category emanates from codes TOB9, TOB10, TOB11, TOB12 and TOB13 which indicates that learners' answers should conform to subject, course or programme objectives. A fourth category that emerges from the coded transcriptions addresses the fact that students were not allowed to copy directly from the text books. This category emanates from codes TOB6, TOB7, TOB14 and TOB15 which encourages learners to be critical in their thinking but as long as their answers were in line with marking sheets or template and not use the exact wording of text books.

7.4 FINDINGS FROM THE STUDENT REPORTS

7.4.1 Introduction

This section highlights the findings as they appear in the student reports. The original student reports were obtained from the senior instructors of distance learning institutions that

participated in the interviews. The student report from the South African Army College was a feedback compiled by distance learners who participated in the Junior Command and Staff Programme in 2008 and 2009 (learner debriefs is a preferred term used by the Army College). A total of 15 student reports used in the study were compiled in syndicate (or group) format. These reports are accompanied by instructor reports (directing staff (DS) is a preferred term used by the Army College) compiled based on the student reports. These reports are based on the following exercises: Mathaithai, Imfazwe, Ubuntu, Safari, Phastrol, and Hlobane. The names were given to these different exercises to distinguish one exercise from the other. Each exercise deals with a particular military doctrine or military approach to war; such as military offensive strategy; military defensive strategy; military retreat or withdrawal. It is not the intention to discuss these military doctrines in this thesis. The student report from the South African Air Force College is a feedback compiled by 5 distance learners who participated in the Senior Supervisor Programme and 15 distance learners who participated in the General Services Human Resources Course in 2009 (learner feedback form on learning programme is a preferred term used by the Air Force College). Thus the findings in the study are based on a total of 20 individual Air Force College student reports. The student report from the School of Military Health Training was a feedback compiled by distance learners who participated in the Junior Command and Staff Programme in 2009 (Questionnaire for orientation programme is a preferred phrase by the School). A total of 15 individual student reports were used in the study compiled in syndicate (or group) format. Although a letter of permission from Defence Intelligence (Appendix R) and the researcher's letter of request to access the student reports (Appendix P) was produced by the researcher, all the participants cited problems of strict confidentiality when dealing with student reports. Hence, explained that they will only make few student reports available. The data in the student reports is matched against the relevant 1996 and 1998 NADEOSA Quality Criteria for Distance Education in South Africa. The student reports are also matched against the relevant Criteria for Accreditation of Programmes offered through Distance Education developed by the Higher Education Quality Committee of the Council on Higher Education (in draft 4, February 2005). These criterions were used interchangeably in the study as they had the tendency to compliment each other. The title of each table is named after the NADEOSA distance education criteria as the heading of the paragraph. The tables depict the information as contained in the student reports. As alluded to before, the codes allocated to the Army College student reports (ACSR), were used as a baseline for codes allocated to the Air Force College student reports (AFCSR) and the School for Military Health student reports (SMHTSR). After each table a discussion with reference to the interpretation of the data in the table follows.

7.4.2 Policy and planning

Elements in the policy and planning of the 1996 and 1998 NADEOSA Quality Criteria for Distance Education in South Africa require that educational providers provide the mission statement that sets out clearly the goals and principles guiding the distance learning programme. This also meant that these goals and principles are applied correctly. According to the student reports from the Army College, as policies were incomplete, they were not correctly implemented (PPF1). In other instances, there was a lack of policies to guide some issues concerning the student learning. Learners request that there should be a policy guiding issues such when and how instructors' meetings should be held and not to disturb their learning (PP3). The information on policy in the student reports correlates with the information in the interviews that as much as the policy existed it was not utilised correctly.

1. **Policy and planning**: Is a clear sense of purpose and direction by the provider; rationale and relevant systems for the use of distance education methods to achieve the purpose of the programme for the target learners.	
Code	**Description**
PP1	The references to policies are not correct and complete (ACSR).
PP2	The South African Military doctrine should be corrected to avoid contradiction (ACSR).
PP3	The instructors' meetings should not be allowed to disturb learning (ACSR).
PP4	A policy to involve external assessors must be drawn: (ACSR).

Table 7.23: Coding system with regard to policy and planning

The synthesis of the coded transcriptions in table 7.23 allows the opinions to be clustered into two main categories. The combination of PP1 and PP2 constitutes the first category which indicates that policies are not correct or rather not complete. A second category that emerges from the coded transcriptions is the lack of policies on various issues of concern to students as illustrated by PP3 and PP4 emphasizing the fact that there is no policy on instructors when they have to conduct their meetings and/or a policy with regards to the use or involvement of external assessors.

7.4.3 Learners characteristics

Elements in the policy and planning of the 1996 and 1998 NADEOSA Quality Criteria for Distance Education in South Africa require that educational providers be up-to-date with information concerning learners. Such information is used to inform policy and planning of programme development course design and materials development, learner support, and other relevant aspects concerning the learners. The student report from the Army College (ACSR) reports that extra classes were provided to those learners who need them as a student support mechanism (LN2). But this was also because learners in distance learning course provided by the Air Force College (ACSR) do not have the same experience as other learners were slower than others (LN1). This was also supported by the learner's feedback that learners from

different backgrounds should be brought to the same level at the beginning of the course (LN5). It is also troubling that the learners were not confident that they will be able to perform their duties upon qualifying the learning programme (LN6). Distance education learners from the School for Military Health Training (SMHTSR) also echoed the same when they said the course content was very informative but pitched at a higher level (LN7). In addition, they feel that assumptions are sometimes made that everyone understands (LN8). Therefore, it was appropriate that the provider develops a learner profile that includes motivation for learning and for career purposes.

2. **Learners:** An up-to-date detailed information about past, present and potential learners used to inform policy and planning of programme development, course design and materials development, learner support, and other aspects.	
Code	**Description**
LN1	Some learners are slower than others: (ACSR).
LN2	Extra classes and lessons are available to those learners who need them: (ACSR).
LN3	What the learners need to know must be standardized: (ACSR).
LN4	Learner's rights were not necessarily respected throughout the Programmes: (AFCSR).
LN5	Learners from different backgrounds should be brought to the same level at the beginning of the course: (ACSR).
LN6	Learners were not necessarily confident that they can transfer the learning to their workplace: (AFCSR).
LN7	The course content was very informative but pitched at a higher level: (SMHTSR).
LN8	Assumptions are sometimes made that everyone understands: (SMHTSR).

Table 7.24: Coding system with regard to issues about learners

At least only one main category can be synthesised from the coded transcriptions in table 7.24 above. The combination of LN1, LN5, LN6, LN7, and LN8 constitutes the only category which indicates that the level of the programme was too high for certain learners. The level of understanding for some of these learners was not suited for the programme at hand. Hence, these learners needed extra classes to assist them to understand.

7.4.4 Programme development

In addressing the Programme Development criteria, the NADEOSA Quality Criteria proposes that programmes should be designed to be flexible to encourage access and be responsive to changing environments. In addition, programmes must be developed to the purpose and outcomes of the programmes. The findings from the student report from the Army College reveal that the learners were concerned about the lack of streamlined instructions of exercises (PD1) and lack of standardised guidelines (PD3). In this case, the criteria encourages using courses in more than one programme. The findings in the student report from the Air Force College point out the fact that training methods were not necessarily appropriate and contributing to learning (PD5). The criteria emphasises that careful analysis of the most appropriate technologies to support teaching and learning processes during programme planning. Student reports points out that the learning sequence was not logical to assist

understanding (PD4). According to the NADEOSA Criteria, "due attention should be paid to the appropriate sequencing of modules in a programme…" (24). The criteria also, encourage innovation and flexibility in procedures of programmes. This could as well apply to the feedback of students in the student report from the School of Military Health Training that time allocated for the course might be too short (PD6).

3. Programme Development: Programmes are flexible with national, learners and employer needs in mind; their form and structure encourage access and responsive to changing environments; learning and assessment methods are appropriate to the purpose and outcomes of the programmes.	
Code	**Description**
PD1	The instructions of the exercises should be streamlined and standardized: (ACSR)
PD2	There should be no break within modules; the programme must continue to flow: (ACSR)
PD3	The guidelines must be standardized: (ACSR)
PD4	Learning sequence was not logical to assist understanding: (AFCSR)
PD5	Training methods were not necessarily appropriate and contributing to learning: (AFCSR)
PD6	The time allocated for the course might be too short: (SMHTSR)

Table 7.25: Coding system with regard to issues of programme development

The synthesis of the coded transcriptions allows the opinions to be clustered into two main categories. The combination of PD1, PD2 and PD3 constitutes the first category which indicates that the programme development was not standardised. A second category that emerges from the coded transcriptions in table 7.25 is the authoritarian and prescriptive doctrine of the curriculum as illustrated by PD4 and PD5 emphasizing the fact that programme development was not logically sequenced to assist understanding to learning. Added to this category is that the training methods were not appropriate to the programme development.

7.4.5 Course design

The course design section in the NADEOSA Quality Criteria for Distance Education in South Africa specifies that the course curriculum should be well-researched, with aims and learning outcomes appropriate to the level of study; content, teaching and learning and assessment methods should facilitate the achievement of the aims and learning outcomes. Student reports at the Army College indicated that the Syndicates were too large to be catered by one instructor, (CD1), as a result some learners felt that the outcomes were not achieved (CD3). They also felt that the exercises should be standardized to avoid confusion (CD2) to an extent that the level of content is too high for the current level of training (CD4). In addition, the learners felt that the presentation on Air Force had no meaning to them (CD5). Student reports at the School for Military Health Training indicate that the learners have some related problems with the content of their programme: it lacked detail because of little time (CD6); it lacked clarity on certain processes (CD7); and it had no value to them (CD8).

4. **Course design:** The course curriculum is well-researched, with aims and learning outcomes appropriate to the level of study; content, teaching and learning and assessment methods facilitate the achievement of aims and learning outcomes; there is an identified process of development and evaluation of courses.	
Code	**Description**
CD1	Syndicates are too large to be catered by an instructor: (ACSR)
CD2	Exercises should be standardized to avoid confusion: (ACSR)
CD3	Some learners felt that the outcomes were not achieved: (ACSR)
CD4	The level of content is too high for the current level of training: (ACSR)
CD5	The Air Force presentation had no meaning to the learners: (ACSR)
CD6	The content lacked detail because of little time: (SMHTSR)
CD7	The content lacked clarity on certain processes: (SMHTSR)
CD8	The content had no value: (SMHTSR)

Table 7.26: Coding system with regard to course design

Only one main category can be synthesised from the coded transcriptions in the discussion of course design from table 7.26 above. The combination of CD2, CD5, CD6, CD7, and CD8 constitutes the single category which indicates that the content lacked clarity, detail and, hence, had no value. This was also as a result of lack of standardization. Again the learners felt that the level of the content was too high for them to understand. The learners also felt that the arrangement in group format (syndicates) was too large for one instructor as a result the intended outcomes are not achieved.

7.4.6 Course materials

The section of the materials review in the addendum to section two of the 1996 and 1998 NADEOSA Quality Criteria for Distance Education in South Africa (p.50) specifies that the materials need to be periodically reviewed in order to update course materials. Thus, according to student reports, some information on the maps and/or documents is incorrect and some contradictory (CM1). In addition, some of the study guides (manuals) are outdated (CM2). Hence, the request in the student report is that current doctrine or theory must be revised (CM3). The lack of computers (CM4) impacts heavily on the ability of management to provide student support. In their report, the students request that available computers must be regularly maintained in order that they should be free from being contaminated by viruses: (CM5). The fact that the books were already available in the rooms was appreciated and saved time (CM6). The student report from the Air Force College mentions that more learning guides, to master some skills, should be provided (CM7). According to the Air Force College student report, the learning materials were not necessarily clear, nor sufficient and promoting learning (CM8). Books in the library to do research were also not adequate (CM9). The video machine was also not made available (CM10). In addition, there was a lack photocopying machine (CM11). The learners suggested in the student report that reference material for beginning learners should be made available (CM12). Study guides (or learning materials) were not provided in other subjects (CM13).

5. **Course materials:** The content, assessment, and teaching and learning approaches in the course materials support the aims and learning outcomes; the materials are accessibly presented; they teach in the coherent way that engages the learners; there is an identified process of development and evaluation of course materials.	
Code	**Description**
CM1	Some information on the maps and/or documents is incorrect and some contradictory (ACSR)
CM2	Some of the study guides (manuals) are outdated: (ACSR)
CM3	Current doctrine or theory must be revised: (ACSR)
CM4	There is a serious lack of computers: (ACSR)
CM5	Available computers must be regularly maintained (clean the viruses): (ACSR)
CM6	The fact that the books were already available in the rooms was appreciated and saved time: (ACSR)
CM7	More learning guides, to master some skills, should be provided: (AFCSR)
CM8	The learning material were not necessarily clear, nor sufficient and promoting learning: (AFCSR)
CM9	Lack of adequate books in the library to do research: (AFCSR)
CM10	The video machine was not made available: (AFCSR)
CM11	There was a lack photocopying machine: (AFCSR)
CM12	Reference material for beginning learners should be made available: (AFCSR)
CM13	Study guides (or learning materials) were not provided in other subjects: (SMHTSR)

Table 7.27: Coding system with regard to course materials

The synthesis of the coded transcriptions allows the opinions to be clustered into two main categories. The combination of CM1, CM2, CM3 and CM8 constitutes one category which indicates that the course materials are both outdated and incorrect. These learning materials do not contribute to the promotion of learning as they are not sufficient and clear to comprehend. Another category that emerges from the coded transcriptions in table 7.27 is the lack or inadequacy of other learning materials as illustrated by CM4, CM5, CM7, CM9, CM10, CM11, CM12 and CM13. This category emphasized the fact that such learning materials as computers, study guides, books, video machines and reference materials were either not adequate or provided. It also emerged from the coded transcripts that, if some of these learning materials were provided, they were not properly maintained in order to contribute to teaching and learning continuity.

7.4.7 Assessment

The assessment criteria in the NADEOSA Quality Criteria for Distance Education in South Africa emphasises that assessment should be recognised as a key motivator of learning and an integral part of the teaching and learning process. It adds that it should be used to inform teaching practice and improve the curriculum. In addition, there should be a range of formative and summative assessment tasks and methods which ensures that all learning outcomes are validly assessed. It also specifies that there should be a range of parties involved in assessment of learners; and these include self-assessment, peer assessment, tutor assessment and/or assessment by workplace mentors. According to the student reports of the Army College peer and formative assessment occurred to a limited degree (ASMT1). These

student reports also reveal that the layout of the summative assessment must be verified and rectified (ASMT2). They also mentioned that the time available to write the assessment was not enough (ASMT3). However, the approach to the assessment was very fair and the learners knew what was expected of them (ASMT4). The learners request that they should be provided with extra instructors during writing of the assessments (ASMT5). They also request that some assessment technique, like fill-in missing words, should be revised (ASMT6). In addition, an approach to assessments should be standardised (ASMT7). The student reports of the Air Force College highlighted the fact their assessment appeals' procedures were not easy to use (ASMT8).

6. Assessment: Is an essential feature of the teaching and learning process, is properly managed, and meets the requirements of accreditation bodies and employees.	
Code	**Description**
ASMT1	Peer and formative assessment occurred to a limited degree: (ACSR)
ASMT2	The layout of the summative assessment must be verified and rectified: (ACSR)
ASMT3	Time available not enough for the assessment: (ACSR)
ASMT4	The approach to the assessment was very fair and the learners knew what was expected of them: (ACSR)
ASMT5	Provide with extra instructors during the assessments: (ACSR)
ASMT6	Some assessment technique (e.g. fill-in missing words) should be revised: (ACSR)
ASMT7	An assessment approach should be standardizes: (ACSR)
ASMT8	The assessment appeals' procedures are not necessarily easy to use: (AFCSR)

Table 7.28: Coding system with regard to the assessment

The synthesis of the coded transcriptions from table 7.28 above allows the opinions to be clustered into one main category. The combination of ASMT1, ASMT2, ASMT6 and ASMT7, constitutes a category which indicates that there was a problem with regards to assessment approach. According to this category, assessment approach is not standardized and should be revised. It also points out that the layout of the two assessment approaches; the formative and summative assessments should be verified and/or rectified. In addition, the peer and formative assessments occurred very minimally as opposed to regularly. According to the student reports, learners were concerned about time allocated to writing assessments. It seemed the time that was available was not enough for learners to complete the assessment. Also, it seemed there was a shortage of instructors during writing assessments. There is also a concern with regards to the assessment appeals' procedure. It seemed it is not according to the accreditation requirements.

7.4.8 Learner support

The learner support section in the NADEOSA Quality Criteria for Distance Education in South Africa specifies that learners should be provided with a range of opportunities for real two-way communication through the use of various forms of technology for tutoring at a distance…and the stimulation of peer support structures. In adds that the need for physical

facilities and study resources and participation in decision-making should also be taken into account. According to student report of the Army College pre-briefing by the Exercise instructor was excellent despite power failure sometimes (LS1). In addition, pre-briefing by the Exercise instructor was of high standard (LS2). But, the student report also states that the instructor expectations or outcomes were not clear to the learners (LS3). The learners mentioned that they knew what was expected from them at all times (LS4). The learners request in their student report that all documentation must be handed out at the beginning of the Exercise (LS5). The learners appreciated the effort to give guidelines and help after hours (LS6) and the effort by the instructor to give advice and help for revision work (LS7). The student report reports that the learners were informed on the basic arrangements and received a block programme for the week (LS8). On one hand it adds that some instructors do a lot of preparation with reference to their lectures (LS9). On the other hand, the student report reiterates that there was no relation between the Distance Education Module (DEM) and the Residential Education Module (REM) (LS10). Hence, a build up of outcomes on the DEM course should be applicable to the outcomes on the REM course (LS11). Somehow, the student report cited that there was a good link-up between the DEM and REM (LS12). The student report request that the subject matter should be presented in more depth during the DEM phase in order for learners to understand it in the REM phase (LS13). The learners complain in the student report that not enough is allowed to do the corrections (LS14). The request from the learners is that feedback should be provided to them by means of examples (LS15). The learners also wanted to bring to the attention of authorities that the effectiveness of information technology (IT) remained a challenge (LS16). In addition, the learners highlighted the fact that the responsibilities of some learners towards their families should be taken into consideration (LS17).

7. **Learner support:** Learners are provided with a range of opportunities for real two-way communication through the use of various forms of technology for tutoring at distance; participation in decision-making by learners is also taken into account.	
Code	**Description**
LS1	Pre-briefing by the Exercise instructor excellent despite power failure sometimes: (ACSR)
LS2	Pre-briefing by the Exercise instructor of high standard: (ACSR)
LS3	Instructor expectations or outcomes were not clear to the learners: (ACSR)
LS4	We knew what was expected from us at all times: (ACSR)
LS5	All documentation must be handed out at the beginning of the Exercise: (ACSR)
LS6	The effort to give guidelines and help after hours was good: (ACSR)
LS7	The effort for revision by the instructor for learners to recap was very good: (ACSR)
LS8	The learners were informed on the basic arrangements and receive a block programme for the week: (ACSR)
LS9	Some instructors do a lot of preparation with reference to their lectures: (ACSR)
LS10	There was no relation between the Distance Education module (DEM) and the Residential Education module (REM): (ACSR)
LS11	Build up of outcomes on the DEM course is applicable to the outcomes on the REM course: (ACSR)
LS12	There is a good link-up between the DEM and REM: (ACSR)
LS13	The subject matter could be presented in more depth during the DEM phase in order for learners to understand it in the REM phase: (ACSR)
LS14	Not enough time allowed to do the corrections: (ACSR)
LS15	Feedback must be provided to the learners by means of examples: (ACSR)
LS16	The effectiveness of information technology (IT) remains a challenge: (ACSR)
LS17	The responsibilities of some learners towards their families should be taken into consideration: (AFCSR)

Table 7.29: Coding system with regard to learner support

The synthesis of the coded transcriptions from table 7.29 allows the opinions to be clustered into two main categories. The two categories can be divided into issues that the learners appreciated and those that still present some challenges in terms of student support. The combination of LS1, LS2, LS4, LS6, LS7, LS8, LS9 and LS12 constitutes the category in which learners indicated a range of appreciative factors in terms of learner support. The learners are appreciative of the instructors' efforts although faced with challenge of power failure. Pre-briefing of relevant Exercise was of high standard and they knew what was expected of them. The learners also appreciated the guidelines given after hours and said it was good. The effort by the instructors to provide revision exercises in order for learners to recap was also good. The information given to the learners with regards to the programme of the week was also appreciated by the learners. The preparation done by some of the lecturers for their lecturers was also appreciated. The learners seemed to appreciate the interaction with them as displayed by some of the instructors as it assists the learners to achieve their set objectives. On one hand, some learners are appraised the link-up between distance learning phase and residential phase (LS12). On the other hand this link-up presents with some challenges (LS10). The other category that emerges from the coded transcriptions concerns the challenges as regards to student support and is illustrated by LS3, LS5, LS10, LS11, LS13, LS14, LS15, LS16 and LS17 emphasizing some of the factors vital in distance

learning. It seemed there was a problem of communication when learners suggested that instructor expectations were not clear (LS3). The interrelation between the distance learning phase and the residential phase still presents with challenges. This is also evident according to learners that the subject matter should be presented in depth in order to prepare for and better understanding during residential phase. The effectiveness of information technology remains a challenge. It also emerged that adequate time should be considered when providing feedback which feedback should be more effective in terms of examples. Learners also reiterated the fact that their responsibility towards their families should be considered.

7.4.9 Human resource strategy

The human resource strategy section in the NADEOSA Quality Criteria for Distance Education in South Africa specifies that the staff structure as well as the experience, qualifications, responsibilities and job descriptions of staff are appropriate for the education and training services. It adds that staff development programmes should be able to equip staff to perform their roles and tasks effectively. According to the Air Force College student report, the staffs at the College are not friendly (HRS1). In addition, the training staff (or instructors) did not conduct themselves in a professional manner (HRS2). Course morale is not positive and conducive to learning (HRS3). The student report mentions that somehow practitioners (or instructors) are not always well prepared to deliver the learning plan (HRS4). It also adds that practitioners (or instructors) are not necessarily able to transfer learning effectively (HRS5). In addition, practitioners (or instructors) are not necessarily competent and knowing the subject matter (HRS6). The student report from the School of Military Health Training mentions that some presenters (or instructors) do not prepare properly for the lecture (HRS7). Hence, some presenters (or instructors) are boring as they read the material to learners (HRS8). But some presenters (or instructors) are unable to answer some questions (HRS9) and some instructors lack expertise of the subject matter (HRS10). The student report of the School of Military Health Training adds that some instructors have poor presentation skills (HRS11).

8. Human resource strategy: The staff structures as well as the experience, qualifications, responsibilities and job descriptions are appropriate; staff development programmes equip staff to perform their roles effectively.	
Code	**Description**
HRS1	The staff were not friendly: (AFCSR)
HRS2	The training staff (or instructors) did not conduct themselves in a professional manner: (AFCSR)
HRS3	Course morale was not positive and conducive to learning: (AFCSR)
HRS4	Practitioners (or instructors) were not always well prepared to deliver the learning plan: (AFCSR)
HRS5	Practitioners (or instructors) were not necessarily able to transfer learning effectively: (AFCSR)
HRS6	Practitioners (or instructors) were not necessarily competent and knowing the subject matter: (AFCSR)
HRS7	Some presenters (or instructors) do not prepare properly: (SMHTSR)
HRS8	Some presenters (or instructors) were boring as they read the material to learners: (SMHTSR)
HRS9	Some presenters (or instructors) were unable to answer some questions: (SMHTSR)
HRS10	Some instructors lacked expertise of the subject matter: (SMHTSR)
HRS11	Some instructors had poor presentation skills: (SMHTSR)

Table 7.30: Coding system with regard to human resource strategy

When table 7.30 is synthesised from the coded transcriptions from HRS1 through to HRS11 it allows the opinions to be discussed from one perspective. That discussion seemed to be centred mainly on the lack of dialogue as discussed in Moore's transactional distance theory. According to learners, the instructors lacked expertise and professionalism (HRS2). It also seemed the instructors were not friendly towards learners (HRS1) as learners' morale was not always positive (HRS3). Dialogue demands partnership, respect and warmth of both learners and instructors. According to the coded transcripts, instructors were not always prepared to deliver the learning plan (HRS4). It would then seem that the instructors were not taking advantage of the interactivity of the programme offered. In addition, the experience and academic level of the instructor presents some challenges.

7.4.10 Management and administration

The elements of management and administration in the NADEOSA Quality Criteria for Distance Education in South Africa emphasises that efficient administrative systems should be able to support the activities of the educational provider. The student report of the Air Force College mentions that the learning venue was not suitable for course purposes (MA1). Catering was not sufficient to cater for group needs (MA2). It adds that accommodation was not suitable (MA3). In addition, pre-course induction was not necessarily clear and useful (MA4). The student report of the School for Military Health Training mentions that time management on the part of the instructors was lacking (MA5). It adds that the approach of some instructors was very prescriptive (MA6).

9. **Management and administration:** There is effective and accountable management of communication and information as well as human and material resources; democratic governance structures are in place; financial administration is sound to make reliable educational provision.	
Code	**Description**
MA1	The learning venue was not suitable for course purposes: (AFCSR)
MA2	Catering was not sufficient to cater for group needs: (AFCSR)
MA3	Accommodation was not suitable: (AFCSR)
MA4	Pre-course induction was not necessarily clear and useful: (AFCSR)
MA5	Time management on the part of the instructors was lacking: (SMHTSR)
MA6	The approach of some instructors is very prescriptive: (SMHTSR)

Table 7.31: Coding system with regard to management and administration

The synthesis of the coded transcriptions allows the opinions to be clustered into two main categories. These categories consider the teaching and learning on part and the learning environment on the other part. The combination of MA2 and MA3 constitutes one category which indicates that the catering (MA2) and accommodation (MA3) were respectively not sufficient and suitable to cater for the needs of the group. Another category that emerges from the coded transcriptions concerns the inadequate and prescriptive nature of the structure. According to learners, the learning venue was not suitable for the programme. Pre-course briefing was not clear and useful to the learners. The instructors cannot manage their time for the benefit of the learners. In addition, the approach of instructors to teaching and learning is much prescriptive.

7.4.11 Quality assurance

The elements of quality assurance in the NADEOSA Quality Criteria for Distance Education in South Africa specifies that there should be a clear cycle of planning, development, documentation, reporting, action, and review of policy and procedures. It adds that efforts should be made to ensure that there are demonstrable processes and ongoing efforts to improve the quality of teaching and learning according to priorities identified through monitoring and evaluation processes. In addition, efforts should be made that quality management mechanisms are in place to ensure that exported programmes are of equivalent quality…The Army College student report mentions that the quality of preparations during the distance education module (DEM) was insufficient for application during residential education module (REM) (QA1). It adds that the general quality of the Exercises needs to be improved: (code QA2). The student report from the School of Military Health Training reports that some aspects of the learning programme were not relevant: (code QA3).

11. **Quality Assurance:** An integrated framework of planning, implementing, monitoring, reflection and action to ensure that the needs of all the stakeholders are met.	
Code	**Description**
QA1	The quality of preparations during the distance education module (DEM) was insufficient for application during residential education module (REM): (ACSR)
QA2	The general quality of the exercises needs to be improved: (ACSR)
QA3	Some aspects of the learning programme were not relevant: (SMHTSR)

Table 7.32: Coding system with regard to quality assurance

According to the learners, the overall quality assurance of the programme displayed a lack of planning on the part of the distance learning institutions. It seemed there is no much preparation done by these institutions in terms of preparing for the distance learning phase and the residential phase. The general quality of the programme seemed to be very poor as the learners feel that some aspects are not relevant.

7.4.12 Information dissemination

The elements of information dissemination in the NADEOSA Quality Criteria for Distance Education in South Africa emphasises that the learners should be informed regarding access to technologies used in the programme, technical competence required, and the nature and potential challenges of learning in the programme's technology-based environment. The elements adds that the information about the programme should be able to reach as many as possible those who are expected to have a need or use for the programme, given the limitations imposed by resources and available information channels. In addition, the strategies should form part of the institution's management of information system and are subjected to institutional cyclical reviews. The student report from the Air Force College mentioned that the language and explanations were not necessarily clear and understandable (ID1). The student report also mentions that interaction was not necessarily encouraged and supported (ID2). There was also a mention that the learner guidance and support were not always readily available and useful (ID3). The student report goes to say that the pace of delivery did not match learner requirements (ID4). In addition, feedback on progress was not always regular, sufficient and useful to the learners (ID5).

12. **Information Dissemination:** Education and training services are effectively and accurately promoted in a variety of ways.	
Code	**Description**
ID1	The language and explanations were not necessarily clear and understandable: (AFCSR)
ID2	Interaction was not necessarily encouraged and supported: (AFCSR)
ID3	Learner guidance and support was not always readily available and useful: (AFCSR)
ID4	The pace of delivery did not match learner requirements: (AFCSR)
ID5	Feedback on progress was not always regular, sufficient and useful: (AFCSR)

Table 7.33: Coding system with regard to information dissemination

According to the information in table 7.23, it seems that the teaching and learning services were not adequately effectively and accurately promoted. The learners felt that the language used was not necessarily clear and understandable. Most importantly, interaction was not encouraged and supported. Guidance and support seems to be lacking. It seems the learner needs were not always addressed or met. Feedback was not given regularly and, if given, it was not sufficient and useful.

7.5 CONCLUSION

This chapter presented the summary of the findings of fifteen interview questions put to the focused groups and seven individual (or personal) interview questions for the three institutions. These institutions were the Army College from the South African Army (SAA), the Air Force College from the South African Air Force (SAAF), and, the School for Military Training from the South African Military Health Service (SAMHS). It was pointed out that the South African Navy declined to participate stating that their institution was no longer conducting their studies through distance learning.

The findings of this study were allocated codes and presented in tabular form from where the information was analysed. (The raw data is contained in appendices F, G and H for focus-group interviews, appendices J, K and L for individual (or personal) interviews, and appendices M, N, and O for student reports). Focus groups comprising distance learning course managers, course coordinators and instructors or facilitators from those particular institutions were made available to the researcher. Each member from these focus groups later participated in the individual (or personal) interviews. It was necessary to conduct the added interview questions because the researcher felt that the main research question and sub-questions had not been adequately answered. In addition, the researcher decided to replace the unavailability of student interviews with anonymous student reports normally collected by programme managers at the end of a programme. Permission was granted by the Department of Defence higher authority for the researcher to have access to the information at the named distance learning institutions. The permission letter is attached as Appendix P. The department of defence higher authority is the defence intelligence unit specifically designated to grant the permission. The researcher produced an official letter from the authority to the participant distance learning institutions. In turn, the participants also signed a letter giving permission to the researcher to use information from the interviews and that contained in the student reports.

Coding as data-analysis procedure was used. Coding is the process of dividing data into parts by a classification system (Schumacher & McMillan, 1993:486). Thus, data analysis was specified, classified and categorised.

The next chapter attempts to analyse and synthesise the information gathered in focus-group interviews, individual (personal) interviews, and student reports in relation to the four main research questions. In addition, and most importantly, the next chapter uses this information in relation the theoretical framework of the study; that is, Michael Moore's theory of 'Transactional Distance'. This also means that 'discipline or dialogue' will be the focus of attention. The next chapter discusses the summary of the research results, conclusions, recommendations and implications, and suggestions in terms of further investigation.

CHAPTER 8

SUMMARY OF THE RESULTS, CONCLUSIONS, RECOMMENDATIONS AND IMPLICATIONS

8.1 INTRODUCTION

The aim of this chapter is to discuss the summary of the main findings from the focus-group interviews, individual (or personal) interviews and student reports in terms of the literature review and the empirical study. The chapter also provides some recommendations and implications. Suggestions for further study are also provided in this chapter. The discussion of focus-group interviews is aimed at understanding how the literature review and empirical study informs this thesis on student support to issues such as the distance teaching and learning characteristics of the DOD distance education institutions. The requirements and the involvement of students for designing distance learning programmes are discussed. The encouragement of students to achieve the intended outcomes is further explored. The impact of bigger or wider transactional distance as a result of more structure is also discussed in the conclusion of this thesis. The experience of the department of defence distance learning practitioners with the DOD ETD Process is discussed. This further explores the nature of the design of distance learning programmes.

The interaction among students, the interaction between students and instructors coupled to the freedom of speech and empowerment is thoroughly viewed. The students' freedom of expression of ideas and in terms of academic discourse and answering examination questions freely is looked into. The dependence on the prescriptiveness of the department of defence doctrine of content in terms of curriculum design is discussed. Also how much freedom is allowed in the selection of content and how much deviation from a fixed content is allowed is analysed. The contribution of study guides on learning tasks and the authenticity of the tasks to achieve intended objectives is explored.

The preparation and qualification of the department of defence distance education instructors is also further explored. The main reasons for considering distance education by the department of defence distance learning institutions and technologies used is also analysed. The difference between withdrawal from the programme and drop out and failure is analysed. The prevalence and need for a distance learning policy in the department of defence is also explored. How problems associated with distance learning issues could be solved is also explored. In addition, the chapter discusses the main findings from the empirical study, with regards to the sub-questions of the study. The discussion of the main findings in terms of

these issues are then synthesised to the discussion, analysis and exploration of the main research question.

The discussion from the individual (or personal) interviews is aimed at understanding how the literature review and empirical study informs this thesis on student support to issues such as the extent of the function of a training branch's dependence on the prescriptiveness of the subject content as well as the freedom allowed in the selection of content. It also looks at how much deviation is allowed from a fixed norm. The emphasis of learning tasks in the study guides and the authenticity of these learning guides is also discussed. The issue of encouraging learners to communicate or debate their answers to learning questions freely in order to master the outcomes is also discussed.

The discussion from student reports is aimed at understanding how the literature review and empirical study informs this thesis on student support to issues raised by the 1996 and 1998 NADEOSA Quality Criteria for Distance Education in South Africa. These include such issues as policy and planning, human resource strategy and management and administration. In addition, issues that discuss programme development, course design, course materials, and information dissemination are also looked into. Issues pertaining to learners' characteristics, assessment, quality assurance, and learner support will also form part of the discussion in this chapter.

8.2 MAIN FINDINGS FROM THE LITERATURE REVIEW

The main findings indicated that the characteristics of distance teaching and learning in the SANDF distance learning institutions involve the induction, contact and residential phases (Par 7.2.2). As noted by Viljoen (1999:[s.p.]):

> "In the SANDF distance learning will probably always be a component of any course, since most courses demanded that the students gather at a central place for varying periods for certain practical aspects of their training".

Therefore, the form of distance learning consist of distance learning phases alternated by one or more residential and contact phases coupled with a practical phase *(ibid*:[s.p.]*)*. The South African Defence Review (1998:850 suggested that distance education through correspondence with an inclusion of a practical phase was an option to manage programmes in the department of defence. The success of distance learning in the SANDF would, as for any other training, depend on ensuring the provision of student support thorough understanding of the characteristics of distance learning in these institutions. The students remained in their usual environment and even the contact sessions with the ETD Practitioners could take place at

their units (Bless, 2002). This main characteristic in distance learning allows for the requirements of different kinds of learning modes, such as independent learning, group learning, and discussion with teachers (Kubota, *et al*:169). It means therefore that interaction is central to any of these kinds of learning modes; whether the learner alone, or with other learners, or with the instructor. But it is interesting to learn how much of this interaction takes place and/or is allowed in these learning modes in the department of defence.

The findings also reflected that teaching and learning utilises facilitation (Par 7.2.3) and may also take place at the students' workplaces (Par 7.2.2). However, Moore (1990) suggested that the interaction of both the instruction and the student could form part of the characteristics of a distance learning institution in order to be effective to respond to them. However, facilitation in the SANDF is based on an adult teaching and learning approach. Adult learners are by nature questioning and inquiry-oriented (Frick, *et al*, 2010:86). In addition, it was discovered that students were assessed utilising formative and summative assessment. Several formative assessments were conducted during the course of a programme to monitor the progress of students. A summative assessment was conducted at the end of the programme to determine if students had achieved the intended outcomes. In addition, a 'mark sheet' was utilised in marking student's work or product. The implication is that if the student's answer did not match the 'mark sheet,' the answer given by the student was wrong. The utilisation of the 'mark sheet' does not provide an independent and analytical learning impetus on the part of the student. The learners are expected to think and/or analyse according to the 'mark sheet'. Hence something to the contrary is deemed to be inappropriate and thus wrong. Therefore, there is a lack of student support with regards to achieving the intended outcomes as the characteristic of distance learning in the institutions of distance learning in the SANDF.

The findings of the study also revealed that the requirements for designing distance learning programmes in the SANDF distance learning institutions include a curriculum, specific outcomes, and assessment guidelines (Par 7.2.3). In addition, these programmes must contain a learning content and a learning strategy. These dichotomies are used as learning guidelines. In addition, the findings indicate that directors provide the curricula to programme coordinators or managers from where they have the freedom to design instruction and are not allowed to change the curricula as supplied (Par 7.3.2).

The findings from student reports indicate that course design lacked some clarity and detail (Par 7.4.5). According to Sullivan and Rocco (1997), distance learning activities could be

designed to fit the specific context for learning. In addition, Nash (2004a) observed that instructional designers who followed standard, one-size-fits-all best practices without benefit of needs assessment or analysis of the participants were out of touch with the realities of today's military service. She went on to say that online course developers and administrators failed to appreciate the students' skill-sets, military training, educational background, cultural diversity, work schedules, and the nature of their access to the Internet *(ibid)*.

The findings also suggest that in the SANDF distance learning institutions, the requirements for designing also involved pathways and assignments (Par 7.2.3). A pathway is a system of building a student's career step-by-step. A student should be able to progress to the next level of his or her learning career after he or she had mastered a certain level. As a result, there was practically no opportunity for students to deviate from the learning path or to vary it to take account of individual learning requirements or spontaneous contributions (Peters, 1998:41). The course objectives should be flexible enough to allow the student to adapt them and make connections between one's own goals and course content and objectives (Nash, 2005a).

According to the assembled evidence, to achieve the intended outcomes, students must be found competent in specific outcomes (Par 7.2.4). The evidence suggests that the specific outcomes are the yardstick to measure if students have mastered their learning. Thus, students must adhere to these specific outcomes as they are also encouraged verbally what is to be achieved. In addition, the requirements for the designing of distance learning programmes in these institutions does not involve student support as, probably, it would constitute one of the main requirements for designing the distance learning programmes. The student reports contend that there was a lack of standardization in terms of achieving the intended outcomes (Par 7.4.5) To achieve the intended outcomes, Holberg (1985), Perry and Rumble (1987) and Keegan (1990), suggested that the printed materials should be well-written, packaged, and have clear objectives.

According to the findings from the interviews and student reports there was no mention of transactional distance. According to the participants interviewed, transactional dialogue in the SANDF distance learning institutions is ensured by the provision of instructors in all the subjects (Par 7.2.5). These instructors work 'day and night' attending to students' learning problems. However, the provision of instructors in all the subjects does not provide enough evidence of their role in student support endeavours. Thus, it is the researcher's view that 'transactional distance' or 'transactional distance' is not understood in the DOD distance learning institutions. According to Nash (2005b) this practice does not prepare instructors to

be able to listen to or appreciate the student's vocabulary (Nash, 2005b). Usun (2004) conducted a study to determine the use and importance of student support in the Turkish distance education system, Open Education Faculty. Although Usun observed that the Turkish distance education system provided for various forms of student support such as student support and student needs; student support and content; student support and institutional context; and student support and technology, there were still some important problems left unconsidered concerning these forms of support. Usun says that, according to the findings of the literature (Murphy, 1991a; Gunawardena, 1996; Demiray, 2002), patronage and oral tradition, which were two important elements, seemed to play a significant role in distance learning.

The SANDF utilises what was called the Education, Training and Development (ETD) Process in the designing of ETD or teaching and learning programmes. The SANDF ETD Project Team institutionalised the ETD Process in 1997 (DOD ETD Project Team Report, 1997a). The ETD Process was specifically utilised in the designing of face-to-face and distance learning modes of instruction. In a summary form, the ETD Process is carried out in four phases; viz., analysis of learning needs, designing of learning opportunities, implementation of learning opportunities, and evaluation of the learning programme. Hence, the participants stated that they either had not seen the ETD Process, or did not utilise nor apply it.

But, on the other hand, some of the participants stated that during the process of designing they include the needs analysis, implementation, and evaluation process (Par 7.2.7). Thus, it would seem that some of the participants do apply the ETD Process but were not aware that they did. This was also mainly because the SANDF distance learning institutions were not directly involved in the designing of the learning programmes. This function is left to the experts who design these programmes (Par 7.2.7). This model had been identified by Verduin and Clark (1991) as institution-centred (1991:167). Escotet (1980) cited by Verduin and Clark (1991) termed this model more instruction than education because little permanent contact between student and instructor or student and student was available (1991:167). This model basically transferred information from the institution to the student in a rather straightforward manner.

The notion of the interests to control teaching and learning is normally associated with the 'normative' approach of developing curriculum and instructional design as mainly echoed by (Smith & Lovat, 2003:113). In addition, the prescriptiveness with regards to the designing of

learning programmes is also associated with the 'descriptive' approach because it describes the actual steps undertaken by curriculum planners (*Ibid*, 2003:113).

According to Kang (2004:39), two distinctive aspects of what became instructional design and development, "behavioural objectives" and "formative evaluation" first became visible in the 1930s. Objectives were specified in behavioural terms and served as the basis for evaluating the effectiveness of instruction. According to Kang (2004:39), many early advocates of instructional systems design and development, such as Finn, Banathy, Briggs, and Gagné, played important roles in systems development. Banathy (1968) defined the systems approach as "a self-correcting, logical process for the planning, development, and implementation of instruction" (in Kang, 2004:40). Finn (1962) argued for the desirability of using scientific procedures to determine educational goals, specifically the use of theories of analysis in the statement of objectives and systematic development of instruction (in Kang 2004). Gagné (1965) made efforts to connect learning objectives to instructional design (in Kang 2004). This was self-evident in the 'normative' and 'descriptive' instructional design approaches as discussed above.

Many instructional design models (such as the Gagné-Briggs model) that have been developed since the early twentieth century and dominated the study of human learning for the first half of the century had been based on behaviourism and cognitivism theories. They vary widely in terms of philosophical orientations, theoretical perspectives, and operational procedures. Some were prescriptive, providing systematic approaches to design courses (Kang, 2004:40). Others were descriptive, providing only a conceptual diagram (Gustafson & Branch, 1997 cited by Kang, 2004:40). They provided instructors and instructional designers with procedural frameworks for systematic production of instruction for traditional classroom-based learning, but have also been used extensively in distance learning settings as with the DOD ETD Process. Evaluation consisted of determining whether the criterion for the objective has been met. In this approach the designer decided what was important for the student to know and attempted to transfer that knowledge to the student. The learning package was somewhat of a closed system, since, although it may allow for some branching and remediation, the student was still confined to the designer's "world" (Mergel, 1998:[s.p.]).

It emerged from the evidence that there was no policy in the SANDF that fostered the students to interact with each other, but the need for students to work together or assist each other was mentioned in the instructional manuals or documents (Par 7.2.8). The contact

sessions were used mainly for students to interact with each other (Par 7.2.8). This meant that the contact and/or residential sessions were the opportunities that the students must utilise to interact with each other. In addition, the distance learning institutions utilised the 'syndicate discussions' for students to mingle and interact with each other. The syndicate discussions system was probably the most favoured form of student interaction in the SANDF.

This was done to such an extent that groups were formed to discuss, deliberate and produce a single learning product. As such, two or more such groups could be formed in a programme. However, two or more groups cannot and were not allowed to produce one and the same learning product. According to the participants, producing the same learning product was the result of 'cut-and-paste', which was not allowed (Par 7.2.8). In some instances, this activity resulted in court-martial proceedings being convened against students involved. On the same token the participants claimed that the opportunity for students to express themselves freely was afforded, although the student's answers in the examinations were not supposed to be the same (Par 7.2.9). The encouragement of open dialogue was not supported and valued by all participants (Moore, 1993). Again, there was no policy in the SANDF that fostered or mentioned the need of students for the freedom of expression. Hence, there was a lack of student support, supported by the policy.

Interaction between students and instructors was vital in the distance learning mode of instruction. The participants mentioned that the interaction that took place between their instructors and students is spelled out in the 'course instructions' (Par 7.2.10). The 'course instruction' mentions that the students must not hesitate to contact the instructors in time of need. This interaction took place during contact and residential phases. One participant mentioned that interaction between instructors and students was still paper-based. This meant that they were still relying on the telephone and facsimile to communicate. The reason was that the technologies still utilised in the SANDF distance learning institutions included the computer, telephone, facsimile, intranet, and lotus notes (Par 7.2.12). Hence, according to the ETD Project Team, technology utilised in the SANDF was outdated (DOD ETD Project Team Report, 1997a). The intranet and lotus notes are communication means utilised widely by members in the SANDF (Par 7.2.12).

The utilisation required the installation of the local area network (LAN) on the premises. The disadvantage was that if such LAN was not installed, the interaction could not happen. Schifter (2002:13) stated that while faculty were the key to a successful distance education programme, it is revealed that less interaction with the students lead to less interest on the part

of faculty to participate. There is also evidence that the SANDF distance learning institutions were still stuck in the practice of the 'first generation' of distance education. According to Verduin and Clark (1991:82), among the major disadvantages of 'first generation' of distance education was the lack of direct interaction between the students and the instructors and amongst the students because it depended largely on correspondence and mail to communicate messages. Thus, the evidence would also suggest that the SANDF lagged behind in the movement along the continuum of 'generations of distance learning' as discussed earlier in the study and this signals the lack of student support in the form of two-way communication and advanced technologies.

The evidence suggested that the reasons to consider distance learning by the distance learning institutions in the SANDF were numerous (7.2.11). Some participants claimed that they utilised the distance mode of instruction as the attainment of specific outcomes in that it exposed students to better knowledge, fostered development, and more skills. As one participant found, 'it was used for life-long learning'. The evidence suggested that distance learning was also used to fast track the learning process in the SANDF. This was done mainly to deal with the backlog experienced in other AoSs; especially in the South African Military Health Services (SAMHS). In addition, the distance learning mode of instruction at SAMHS was used for the reason of trying not to keep professional people like medical doctors for longer periods in class than necessary. It was also suitable to the South African Army as it was an AoSs with the largest members in the SANDF. One gets the impression that the purpose of distance education programmes was to meet the needs and requirements of the department of defence and not to create alternative opportunities for students to grow and develop academically and professionally.

Hence, distance learning instruction was used to accommodate as many students in one class as possible. An interesting finding by Magagula and Ngwenya in 2004, was that the advantages of learning through distance education included, among others, attending to family commitments; the flexibility of studying at one's own pace, time and place; the opportunity to develop independent learning skills, learning to manage time, and developing self-discipline; and access to modules which were well-written and easy to read and understand.

According to the participants in the survey of this study, preparation of instructors for distance learning in the SANDF was attained by preparing instructors in the National Qualification Framework – level four (NQF4) (Par 7.2.13). This qualification included knowledge of instructional methodologies, assessment or evaluation strategies, moderation

processes, etc. Various institutions around the country including the SANDF's College of Instructional Technology (COLET) offered this qualification. Nash (2004a:[s.p.]) observed that some military distance learning institutions did not prepare instructors in any way to relate to students. This was not the fault of the courses, which were actually good (Nash, 2004a:[s.p.]).

The evidence of participants suggested that the SANDF distance learning institutions did not experience drop out and failure in their programmes (Par 7.2.14). Instead, these institutions would normally experience students withdrawing from the learning programme for various other reasons. Some of these reasons were due to the level of educational qualification in a specific learning programme. Accordingly, the withdrawal of students from the programme would simply mean incompletion of the programme.

According to Nash (2004a:[s.p.]), failure in a programme was as the result of a huge disconnection between reality and academia in the design of these programmes. The level of student educational qualification might not be suitable for a specific programme (Par 7.4.3 and 7.4.5). According to Crome and Swift (2004:[s.p]), the student support and student's experience with distance learning of any kind surrounded questions on perceptions. Thus, the increased pressure of work led 5 out of 7 students to abandon their learning plan (*ibid)*. Other reasons for students to withdraw from the learning programme were associated with failure to hand in tasks and general lack of discipline. According to Nash (2004b:s.p.]), other reasons for failure included failure to communicate with students; poorly defined learning outcomes; badly designed instructional tasks; and inaccessible or late course materials (*Ibid*). The faculty was also out of loop and cannot perform basic tasks (*Ibid*). There were too many intermediaries in support services (*Ibid*). The courses were not aligned with needs of students such as failure to provide writing support and inappropriate assessment strategies (*Ibid*). The learning management system issues were problematic (*Ibid*). The content was outdated or irrelevant and learning was badly situated (*Ibid*). In addition, rigid deadlines and policies resulted in counterproductive administrative policies and there were no replacements in case of component breakdown (*Ibid*). Hard-to-access library resources and war and post-war stress issues created some problems (*Ibid*). McGivney (2004:41-42) realised that lack of support in the form of teaching staff not getting to know their students and showing little interest in their work contributed to non-completion. Although according to student reports (Par 7.4.8) learner support was appreciated by the learners, the instructor expectations were not clear.

It was clear from the evidence that the practitioners of distance learning in the SANDF were not necessarily involved in the designing of distance learning programmes in their respective institutions (Par 7.3.2). Hence, they felt that the learning content that they have to work with was prescriptive. Nash (2005b:[s.p]) observed that the United States Military Academy was an elitist, formless, faceless, normative body that exalted absolute conformity of anyone who dared aspire to its ranks. "It required absolute obeisance, a bended knee to the idea that anyone who might question it, was ignorant" *(ibid)*.

In addition, the participants mentioned that they receive their guidelines from the higher authorities (Par 7.3.2). They also mentioned that they do not design the curriculum as it is designed for them. Their respective ETD Directors make use of specialist-in designing the curricula for the instructors. The Directors give specific instructions to the training management what they want to see in the curricula. The training management, including the instructors in certain instances, are only required and allowed to design the modules from the curriculum. Even at the stage of designing the module/s, the instructors are not allowed to change or modify anything. Thus, there is no support for instructors from the authorities to allow the function of designing learning programmes. Some of the distance learning institutions adhere to the specific AoSs doctrines. Hence, the distance learning content in the SANDF distance education institutions is largely prescriptive because the military is an autocratic and has a closed environment that enforces rules and demanding discipline (Johnson, 1998;[s.p.]).

Wilmore (1990:[s.p.]) said that the United States Military Academy at West Point produced high standards of quality officers but observed that, "there was no such thing as participatory or site based management." Administration was totally autocratic *(ibid)*. "The organisational pattern and operating practices of a distance education establishment were, of course, based on the educational philosophy of that institution as well as some economic and political restrictions" (Verduin & Clark, 1991:166). The prevailing philosophy of the military was based on it being an autocratic organisation, as stated earlier. Although hybrids and variations existed, Rumble (1986) cited by Verduin and Clark (1991:167) suggested that there are three potential models for organising distance education: institutional centred, student centred, and society centred.

The institution centred would definitely fit the military organisational and administration of distance education. According to Verduin and Clark (1991:167) in this model large numbers of adult students could be handled with highly controlled and technical experiences emanating

from the institution. Little student input occurred on goals, directions, and content other than the students' decision to enrol in a given course or set of courses *(ibid)*. The "experts" developed the materials and learning packages whose major concern was to develop the protocols and have them delivered to students *(ibid)*. Interpersonal communication was almost nonexistent, and limited guidance was available to students *(ibid)*. Escotet (1980) cited by Verduin and Clark (1991:167) termed this model more instruction than education because little permanent contact between student and instructor or student and student was available. There was also very little socio-cultural interaction and feeling, mutual respect and dialogue, and interpersonal communication that could have made this a model of education *(ibid)*.

The prescriptiveness of the content is also evidenced by the lack of freedom and student support allowed in the selection of the content (Par 7.3.3). Where prescription was the order of the day and open dialogue was not allowed, learning in a constructive way may suffer notable negative consequences (Schuman, 1996:[s.p.]). According to the participants, the content must look exactly the same as the prescribed curriculum. The distance learning practitioners may not select content of their own. They may neither change nor modify it. It must be designed according to the client's needs. The client in this case was the specific ETD Directorate. Hence, the distance teaching and learning approach had to adhere to the outcomes-based education content. Likewise, deviation was not allowed from a fixed content. The distance learning practitioners had to keep to a given learning strategy and strive to attain the outcomes as has been laid down by the higher authorities. Thus according to Schuman (1996:[s.p.]), interaction, freedom of expression, and exploration of ideas through discussion was much celebrated in a constructivist approach.

The distance learning institutions in the SANDF also used study guides (Par 7.3.5). These study guides contained learning tasks that emphasised certain roles to be played by the students. The tasks must be played according to the student's specifications or mustering. The order of tasks, instructional activities, rubrics, etc., should be organized in a way that was easy to find and follow (Nash 2005a). The authenticity of these tasks sometimes caused the problem of 'cut-and-paste' as the students had the tendency of copying each other's work.

It is a fact that the researcher knew that the DOD or SANDF distance education policy had been designed and developed long before but has not been promulgated by the higher authorities yet. Hence, it emerged from the evidence provided by all the participants in the study that some of the SANDF distance learning institutions do not utilise the policy or have

not even seen it (Par 7.2.15). But, on the other hand, participants at the SA Army College stated that they thought that they were in line with the policy. The lack of distance education policy in the SANDF affected a number of distance learning matters. For example, the participants mentioned that there was no official policy on the free expression of ideas by the students. Hence, the students might seem afraid because of the repercussions on the expression of ideas.

Hũlsmann (2000), cited by Welch *et al.* (2004:13), identified a clear policy as one of the three conditions for efficient and effective provision of distance education. The other conditions were an appropriate institutional culture and the consideration of costs. In its document "Criteria for Quality Distance Education in South Africa – 2003," the National Association of Distance Education Organisation of South Africa (NADEOSA, 2003) identified Policy and Planning as one of the quality criteria and critical success factors for distance education provision in South Africa. The purpose of the distance education policy is to guide and inform the distance education initiatives … at the University of Pretoria (University of Pretoria, 2009:10) f Seyoum (2003:9) reported that, "despite the absence of clearly defined policy … a glimmer of hope could be visualized if things were turned around in the secondary level and the Instructors' Training distance education programmes in Ethiopia." He suggested that, the formulation and implementation of a clearly articulated distance learning policy was one of the steps to be addressed by Ethiopia's Distance Education Panel.

As the aim of the study was to determine what requirements are placed on the design of distance education programmes with the aim of identifying the nature of discipline or dialogue and how drop out and student support manifested themselves in a distance learning environment, it was clear from the evidence provided that there was a lack of 'student support', especially characteristic of distance learning institutions in the SANDF. In addition, the requirements for designing distance learning programmes in these institutions did not involve the student support as, probably, it would constitute one of the main requirement for designing the distance learning programmes. However, the provision of instructors in all the subjects and in the provision of extra lessons, in the case of withdrawals as they did not experience drop out and failure, did not provide enough evidence of their role in student support endeavours.

As such, students were encouraged to manage their study and learning time wisely and effectively. As much as students were encouraged to contact and communicate with each other, they were also encouraged to contact and communicate with the instructors instead of

instructors contacting the students. Therefore, it meant that it remained the responsibility of the students to contact and communicate with their instructors. It was only then that their inputs were considered although students' inputs would not change the content. Thus, student support in the form of two-way communication was lacking. The prescriptiveness of the content was also evidenced by the lack of freedom for students to select the content. Again, there was no policy in the SANDF that fostered or mentioned the need for students to have the freedom of expression. Hence, there was a lack of student support, which is supposed to be part of the distance learning policy.

8.3 MAIN FINDINGS FROM THE EMPIRICAL STUDY

This section discusses the main findings retrieved from the empirical study. This includes the classifying and categorising data. A mixture of sources for the classification approach, as suggested by Schumacher and McMillan (1993:487), was applied. Classification of data emanates from the sub-research questions, interview questions, and data themselves. Categories that assisted clustering the data into meaningful groups were identified and patterns were identified.

In this section, the findings are addressed in terms of the questions posed in chapter 1 of this thesis. The discussions that follows deals with the empirical data derived from the interviews as well as the data captured from the student reports.

8.3.1 The character of distance learning programmes in the SANDF

The caption to this section is derived from the first sub-question. The sub-question reads: *What is the unique character of each of the four Arms of Service (AoSs) of the SANDF and what requirements do they place on the design of distance education learning programmes as well as the achievement of the outcomes in such learning environments?* The objective was to determine the character of teaching and learning in the DOD institutions of distance learning in terms of such issues as programme design requirements, achievement of outcomes, etc. The reason is because each AoSs in the SANDF is different and unique in terms of its teaching and learning practices. Some of these characteristics include such issues as the teaching and learning content, strategies, approach, evaluation, assessment, etc. The assembled evidence suggests that teaching and learning characteristics of AoSs in the SANDF are the same or rather identical.

The findings revealed that the teaching and learning character of the DOD institutions providing instruction by means of distance education mostly subscribed to having the

induction, contact and, residential phases. Also, evaluation consists of formative and summative assessments. In addition, these institutions provided their teaching and learning utilising the modular system. It also emerged from the evidence provided that there is a lack of standardization in distance learning programme development. The participants pointed out that they do not enjoy the freedom to select the content to support the achievement of the outcomes. In addition, according to student reports the level of understanding of some of the learners in distance learning programs is not suited for these programs.
The respective ETD Directors designed the curriculum to be used by the ETD managers and instructors; the ETD managers and instructors were only allowed to design their respective modules based on these curricula. It can then be postulated that the DOD distance teaching and learning programmes are pre-planned and prescribed down to the last detail, so that student needs are not taken into account. This view is also supported by the evidence gathered that nothing could be changed nor modified. Hence, deviation from a fixed norm was not allowed. This analysis was also supported by the fact that these institutions emphasised 'outcomes', 'assignments', and 'pathways' as the designing requirements. However, the interaction of both the instructor and the student as forming part of the characteristics of a distance learning institution to be effective to respond to them as suggested by Moore (1990) does not form part the characteristics in the DOD DL institutions. This was why Moore argued that the more 'discipline' or structure, and the less the dialogue, the larger the 'gap' or transactional distance between student and instructor (Moore, 1993 cited in Keegan, 1993:24). This resulted in tension in the interplay of dialogue and structure.

According to Sullivan and Rocco (1997:[s.p.]), distance learning activities could be designed to fit the specific context for learning. Nash (2004a;[s.p.]) observed that instructional designers who followed standard, one-size-fits-all best practices without benefit of needs assessments or audience analyses were out of touch with the realities of today's military service. She went on to say that online course developers and administrators failed to appreciate the students' skill-sets, military training, educational background, cultural diversity, work schedules, and the nature of their access to the Internet *(ibid)*.

The DOD distance education institutions are utilising the 'systems approach' in their instructional design even though they are not familiar with the DOD ETD Process which contains elements of determining needs, development, implementation and assessment of outcomes. The findings also point out that the participants mentioned that they have to talk to students to achieve the intended outcomes. This evidence denotes that the curricula in the DOD distance learning institutions were designed around the achievement of specific

outcomes. The DOD distance learning programmes are designed with reference to 'Outcomes-based Education' (OBE). In the OBE approach, intended outcomes to be achieved are, 'normally' predetermined and prescribed by certain persons for students. Learners and, sometimes, parents are 'normally' not involved in determining the outcomes to be achieved by students. To achieve the intended outcomes Holberg (1985), Perry and Rumble (1987) and Keegan (1990), suggested that the printed materials should be well-written, packaged, and have clear objectives. Hence, according to the ETD Project Team, some DOD distance and face-to-face courses lacked quality and credibility (DOD ETD Project Team Report, 1997a). The student reports pointed to the fact that course design lacked clarity, detail and hence, had no value.

The findings also pointed out that the DOD distance students are not involved in the design and development of distance learning programmes. According to student reports, sometimes learners felt that they lacked confidence. As mentioned earlier, the reason is that the military is an autocratic organisation that sometimes does not encourage academic discourse outside of the military. The military is an establishment that prescribes and enforces rules in order to obtain discipline. Academic participation on issues is normally limited to certain members. The evidence also suggests that the distance education mode of teaching is used only to prepare students for a certain phase; the residential phase in this case. This is the reason why all the participants agreed that they do not have a problem concerning drop out and failure. The DOD distance students are not allowed to drop out because they are handled with highly controlled and technical experiences emanating from the organisation (Verduin & Clark, 1991:167). The organisational philosophy of the DOD is that of prescription and, to a certain extent, duress. Hence, students are not allowed to drop out but withdraw from a specific programme. According to Nash (2004a), failure in a programme was as the result of a huge disconnection between reality and academia in the design of these programmes.

The distance learning policy influences all the issues mentioned above. The participants indicated that that they had not seen nor utilised the policy. This is because the DOD distance learning policy had not been promulgated. Hence, this situation could be subscribed to lack of urgency and importance in the part of the higher DOD ETD authorities with regards to the utilisation of the DOD distance learning policy. Hũlsmann (2000), cited by Welch *et al.* (2004:13), identified a clear policy as one of the three conditions for efficient and effective provision of distance education. Thus, with regards to the objective on the first sub-question, it is clear that the character of structural design of distance learning programmes in the DOD resembled that of a disciplined approach; it was prescriptive, and that it demanded 'things are

done this way here'. The character of the DOD distance learning is not flexible as it is not adapted to the needs of students. There is a lack of policies on various issues pertaining to distance learning. The policies that exist are not correct or rather not complete.

On the other hand, the character of distance learning in the department of defence can be viewed from the characteristics of learners or their distance teaching and learning perception. It was their concern as reported in table 7.24 that the level of understanding of some of the learners was not suited for the distance learning programmes. The combination of LN1, LN5, LN6, LN7, and LN8 constitutes the only category which indicates that the level of the programme was too high for certain learners. The character of distance education in the department of defence should reflect the approach that is appropriate for the level of the learners' understanding. According to De Boer, Steyn and Du Toit (2001:185), programmes…should reflect an educational approach that is appropriate for the participants and meaningful for the specific practice. In these settings, particular attention needs to be paid to the way knowledge is presented. Learners' own experiences and understanding should be seen as valid departure points for discussion. Learner support should assist and encourage learners to be self-directed and accept responsibility. This could only happen when teaching and learning methods are adjusted and used. Greyling, Geyser and Fourie (2002:115) contend that the learners' ability and willingness to take responsibility for their own learning can be enhanced. They (Greyling, *et* al) suggest that learners should be encouraged by the demands of the learning activity and teaching methods employed to develop from independence to interdependence.

8.3.2 Dialogue as vital in the design of teaching and learning

The heading to this section is derived from the second sub-question. The sub-question reads: *How does dialogue manifest itself as a mode of communication between instructor and student in a distance education environment and what constraints does discipline place on transactional dialogue*? The objective was to determine the nature of dialogue as a mode of communication between the role players in the DOD distance learning environment. It is also to determine and understand the role of dialogue in the design of learning material and distance learning teaching and learning in general. The reason is because dialogue, the interaction between students and instructors is vital in distance learning and important in maintaining a sound transactional distance. The more structured the design and development of teaching and learning in the SANDF distance learning were, the less dialogue and interaction occurred among students and with their instructors. As the findings have pointed out the programme design requirements allowed for 'outcome', 'assignments' and 'pathways'. It is evident that the DOD distance learning structure is rigid and largely pre-

planned and prescriptive in nature. Activities such as assignments and conforming to formative and summative assessments restrict dialogue between the DOD instructors and their students. In addition, the dialectical method is neither allowed nor existed in the SANDF's distance learning environment. The Longman Dictionary of Contemporary English (2001) defines the term dialectic as "a method of examining and discussing ideas in order to find the truth". The aim of dialectical method is to try to resolve the disagreement through rational discussion, and ultimately, to search for the truth (Wikipedia, 2007b). Dialectics could be viewed as experientially developing the truth (Van Gerwen, 2001:68).

The use of telephone, fax and lotus notes as a communication medium in the DOD distance learning environment is specifically for administrative purposes and not necessarily for giving and receiving instruction. This form of communication is by far the most utilised bridge between instructors and the students and serves as the basic pedagogic pattern for distance education in the SANDF (Peters, 1998:19). It is 'one-directional'. Its purpose is to give and receive instructions or directives. The interaction between students and instructors is restricted and limited to the use of telephone, fax and lotus notes. As illustrated in table 7.27 the combination of CM1, CM2, CM3 and CM8 indicates a category that the course materials as they also facilitate dialogue in distance teaching learning were both outdated and incorrect. These learning materials do not contribute to the promotion of learning and dialogue as they are not sufficient and clear to comprehend. Another category in table 7.27 is the lack or inadequacy of other learning materials as illustrated by CM4, CM5, CM7, CM9, CM10, CM11, CM12 and CM13. This category emphasized the fact that such learning materials as computers, study guides, books, video machines and reference materials were either not adequate or provided.

Thus, this limited communication is just a mere communication for the sake of communication. And, as mentioned earlier, technology to facilitate the interaction between students and instructors in the SANDF is outdated and still conforms to the 'first generation' of distance education. The skill that is taught to DOD distance students to interact among themselves does not fulfil the requirement of transactional dialogue. The encouragement of open dialogue is not supported and valued by all participants (Moore, 1993). In addition, the level of distance instruction of instructor preparation in the DOD distance learning was found to be limited to ordinary instructor ETD Level four at COLET. This preparation does not necessarily prepare instructors to understand the intricacies of distance education that include, most importantly, student support. Equally so, the DOD distance education policy does not

support the kind of dialogue and interaction between and among the role players. It is non-existent. In addition, the department of defence does not have a policy that encourages students to freely communicate their answers. The evidence suggests that students have to answer examination questions exactly as the 'mark sheet' prescribes. Although, according to the assembled evidence, students can discuss or raise their views 'out of the box' or apply independent thinking, they could only be correct according to the 'mark sheet.'

Thus, because the objective of the above sub-question was to determine the nature of dialogue as a mode of communication between the role players in the department of defence distance learning environment and also to determine and understand the role of dialogue in the design of learning material and distance learning teaching and learning in general. The reason being that dialogue, the interaction between students and instructors was vital in distance learning and important in transactional distance. Therefore, failure to abide by the importance played by dialogue leads to more alienation between students and instructors and the institution. The nature of communication media and technology employed in the SANDF distance learning results in a highly structured distance learning environment. Thus, the DOD distance students do not necessarily feel the warmth, consideration, understanding, honesty, sincerity, and respect in the DOD distance learning environment.

8.3.3 Achievement of learning outcomes in transactional dialogue

The heading of this section is derived from the third sub-question. The sub-question reads: *How the achievement of programme outcomes, as well as drop out and failure rates are linked to subject discipline, learning interventions and transactional dialogue?* The objective was to determine the relationship between the achievement of learning outcomes and dialogue across transactional dialogue. It was also to determine the extent of drop out and failure. The reason being that the lack of dialogue can impact negatively on transactional dialogue and can result in drop out and failure. It was mentioned earlier that the achievement of intended outcomes by students at the DOD distance learning institutions is emphasised by way of their utilisation of the 'systems approach' in their instructional design. This is also communicated to the students.

It means that these outcomes were not necessarily negotiated with the students as they are not involved in the design and development of distance learning programmes. It was also pointed out that drop out and failure does not exist; thus, it was not allowed. Instead, students were allowed to withdraw for one reason or another. The student support and students experience with distance learning of any kind is surrounded questions on perceptions. The increased

pressure of work led 5 out of 7 students to abandon their learning plan (Nash, 2005b). Therefore, the achievement of intended outcomes in the DOD distance learning settings was imposed rather than negotiated across transactional dialogue. The way the students have to master the content of the subject is structured. Thus, distance learning institutions in the SANDF do not prepare instructors to be able to listen to students or appreciate their views. They also did not prepare instructors in any way to relate to students.

The opportunity to allow students the spontaneous contribution to DOD distance teaching is largely non-existent. The DOD teaching and learning institutions, as military institutions, set formal standards and specific requirements to be followed. It is thus concluded that the formal character of structural design of distance learning programmes in the DOD does not allow nor cater for the needs of students for negotiation of transactional dialogue or dialectical discussion. According to the gathered information, the tasks in the study guides in the DOD distance learning mode of instruction are meant for students to master the outcomes.

The tasks in the study guides were not structured so that the students would be able to perform and master the tasks. Although the tasks are given as assignments and discussed in syndicate groups, they did not necessarily ensure participation and encourage attention. Therefore, the objective aimed at determining the relationship between the achievement of learning outcomes and dialogue across transactional dialogue reveals that the achievement of learning outcomes are not adapted to the needs of the students; students are not afforded an opportunity for interactivity.

8.3.4 The role of dialogue in student empowerment

The heading of this section is derived from the fourth sub-question. The sub-question reads: *What is the role of dialogue in student and instructor support and what is their impact on the design of distance education (DE) programmes and achievement of learning outcomes in a DE environment?* The objective was to determine the role of dialogue as a student support mechanism in the DOD distance education environment. It was also to determine other student support endeavours in the DOD distance learning environment. Ensuring dialogue in distance learning programmes contributes to student support and ensures the achievement of learning outcomes.

As mentioned previously students were ‘told’ what the outcomes must be, rather than that it would be ‘negotiated’ or ‘discussed’ with students. The communication was limited to the use of the telephone. It was obvious that this kind of support did not encourage dialogue and mutual respect among the participants. It was also learned that students were not directly

involved in the design and development of distance learning programmes in the DOD. This practice suggested that student support in the DOD was one-sidedly imposed rather than mutually negotiated. The reasons cited for considering distance education in the DOD have, mostly, to do with speeding promotion to the next higher level and not necessarily to inculcate the power of knowledge, analysis and decision-making. It was then concluded that student support in the DOD distance education did not address requirements of dialogue in distance learning settings: it is thus lacking or does not necessarily exist.

The physical environment in which the students learn and the instructors instruct influences dialogue. It was mentioned earlier and the evidence suggested that the DOD distance learning instructors were inadequately prepared (DOD ETD Project Team Report, 1997a:10). The DOD distance learning institutions have a shortage of qualified instructors *(ibid)*. These institutions were then forced to use "unqualified" instructors without proper distance learning training. Thus, dialogue is positively related to the adequate training and preparation of instructors to be able to function appropriately in the distance learning environment. The number of students each instructor is able to instruct also affects dialogue. Thus, student support also meant staff support. The transaction of giving instruction by instructors and responding to it by students depends on proper and adequate dialogue. That is, instructors should be supported through proper and adequate training. As noted above, the objective for posing the sub-question was to determine the role of dialogue as a student support mechanism in the DOD distance education environment, and also to determine other students-support endeavours in the DOD distance learning environment. This is because ensuring dialogue in distance learning programmes also contributes to student support and ensures the achievement of learning outcomes. Verduin and Clark found that Moore's concept of dialogue or two-way communication is sound, but it should include the idea of support since the basic reason for dialogue is to provide support of one kind or another to the distance student (1991:124). This support should also be extended to distance learning instructors.

8.4 FINDINGS WITH REGARDS TO THE MAIN RESEARCH QUESTION

The main research question was to determine what the requirements are for the design of Distance Education (DE) programmes with the aim of identifying the nature of discipline or dialogue and how these factors impact on student support in the SANDF. According to the findings of the study, a one-size-fits-all is the standard that is followed in the design of distance learning programmes in the SANDF distance learning institutions. Open dialogue is not necessarily encouraged, supported or valued in these institutions. The subject content was prescribed to structure the way learning objectives have to be achieved. According to

Schuman (1996:[s.p.]), where prescription was the order of the day and open dialogue was not allowed, learning in a constructive way may suffer some negative consequences (Schuman, 1996:[s.p.]). The experts developed the materials and learning packages whose major concern was to develop the protocols and have them delivered to students *(ibid)*.

Interpersonal communication was almost non-existent, and limited guidance was available to students *(ibid)*. Escotet (1980) cited by Verduin and Clark (1991:167) termed this model more instruction than education because little permanent contact between student and instructor or student and student was available. Present also was little socio-cultural interaction and feeling, mutual respect and dialogue, and interpersonal communication which would have made this an effective model education *(ibid)*. Lt Col Karen Johnson (Ret.) said that this was because "the military was an autocratic, closed environment that was very capable of enforcing rules and demanding discipline" (1998). Wilmore (1990) said that the United States Military Academy at West Point produced high standards of quality officers, but observed that "there was no such thing as participatory or site-based management." Administration was totally autocratic *(ibid)*.

One is once again reminded of work done as far back as 1991 by Verduin and Clark (1991:166) that:

> "The organisational pattern and operating practices of a distance education establishment were, of course, based on the educational philosophy of that institution as well as some economic and political restrictions"

The prevailing philosophy of the military is based on it being an autocratic organisation. As such, the distance education model followed in the SANDF is institutional-centred (Rumble, 1986 cited by Verduin & Clark, 1991:167).

Accordingly, the findings of the study pointed to the lack of student support in the SANDF distance learning institutions and this lack manifested itself in a number of ways. Malan (2004:5) observed that instructors were under-prepared for their roles such as mentoring, coaching, tutoring and creating an environment to enhance learning. McGivney (2004:41-42) had realised that lack of support from the teaching staff who did not know their students and who showed little interest in their work contributed to non-completion. Yorke (2004:26) noted that a sense of belonging had negative implications for distant student's persistence, especially when the student was remote from the provider. Students wanted to feel that they were members of an academic community. Kember *et al.* (2001) cited by Yorke (2004:26), said that sense of belonging could be developed in distant learning institutions in which attendance and some contact sessions was the norm. According to Barefoot (2003) cited by

Yorke (2004:26-27) mutual support was relatively easy to achieve in this respect. Simpson (2004:80) felt that contact with students in any student support-system was very important.

The main findings reflected that the characteristics of distance teaching and learning in the SANDF distance learning institutions involve induction, contact and residential phases. The duration of these phases would vary from institution to institution and depended on the length of the specific course. These institutions would also prepare their students for distance teaching and learning. While the SA Army College prepared their students for distance teaching and learning by giving them what they called Workbooks, the SA Air Force College utilised the Study School. The distance learning in the SANDF distance education institutions is content- and modular-based. Teaching and learning utilised facilitation and may also take place at the students' workplaces. However, facilitation was based on adult teaching and learning approach.

In addition, students are assessed by formative and summative assessment practices. Several formative assessments were conducted during the course of a programme to monitor the progress of students. A summative assessment was conducted at the end of the programme to determine if students had achieved the intended outcomes. In addition, a mark sheet was utilised in marking student's work or product. The implication here was that if the student's answer was not according to the mark sheet, the answer given by the student was wrong. Therefore, there was lack of support, especially, as the characteristics of distance learning in the institutions of distance learning in the SANDF requires adequate support. In addition, assessment should be used as part of instruction to support and enhance learning (Shepard, 2000:4).

The requirements for designing distance learning programmes in the SANDF distance learning institutions included a curriculum, specific outcomes, and assessment guidelines. These programmes had to contain a learning content and a strategy. These were used as learning guidelines. The requirements for designing also involved pathways and assignments. A pathway was a system of building a student's career step-by-step. A student should be able to progress to the next level of his or her professional career after he or she had mastered a certain level. To achieve the intended outcomes, students must be found competent in specific outcomes. The gathered evidence suggested that the specific outcomes were the yardsticks to measure if students had mastered it. Thus, students must adhere to these specific outcomes as they were also encouraged verbally what was to be achieved. In addition, the requirements for the designing of distance learning programmes in these institutions did not

involve the student support as, probably, it would constitute one of the main requirement for designing the distance learning programmes.

The education approach of distance learning institutions in the SANDF was based on the outcomes-based education where knowledge of the subject matter was based on the achievement of intended outcomes. The students were also told to observe the principles as an encouragement to achieve the intended outcomes. By principles of assessment it was meant that there were procedures to follow when a student was not satisfied with his or her allocated marks and needed to appeal the decision. As such, students were encouraged to manage their study and learning time wisely and effectively. As much as students were encouraged to contact and communicate with each other, they were also encouraged to contact and communicate with the instructors instead of instructors contacting the students. It meant that it remained the responsibility of the students to contact and communicate with their instructors.

Transactional dialogue in the SANDF distance learning institutions was ensured by the provision of instructors in all the subjects. These instructors worked day and night attending to students' learning problems. However, the provision of instructors in all the subjects did not provide enough evidence of their role in student support endeavours. The telephone was the medium used by these institutions to communicate with the students. In addition, the course instruction was also another medium used, as it contained everything to be communicated during the learning programme. It also emerged from the evidence that students were not directly involved in the designing of distance learning programmes at the distance learning institutions surveyed. This was because the students were not part of the designing process. These institutions utilised what they called 'specialists' for the designing function of distance learning programmes. The only involvement of the students was evidenced when students had to provide feedback in the form of debriefs. It was only then that their inputs were considered. However, the student's input would not result in the changing of the content.

The SANDF utilises the Education, Training and Development (ETD) Process in the designing of ETD or teaching and learning programmes. The SANDF ETD Project Team institutionalised the ETD Process in 1997. The ETD Process was specifically utilised in the designing of face-to-face and distance learning modes of instruction. In summary, the Process was carried out in four phases; viz. analysis of learning needs, designing of learning opportunities, implementation of learning opportunities, and evaluation of the learning

programme. Some participants stated that they either had not seen the ETD Process, or did not utilise, or apply it, while others stated that they did engage in the needs analysis, implementation, and evaluation process. Thus, it would seem some of the participants did apply the process but were not aware that they did. This was also mainly because the SANDF distance learning institutions were not directly involved in the designing of the learning programmes. That function was left to the specialised people who designed these programmes.

It emerged in the evidence that there was no policy in the SANDF that fosters the students to interact with each other; but the need for students to work together or assist each other was mentioned in the instructional manuals or documents. The contact sessions were used mainly for students to interact with each other. This meant that the contact and/or residential sessions were the opportunities that the students could utilise to interact with each other. In addition, the distance learning institutions utilises the syndicate discussions for students to mingle and interact with each other.

The syndicate discussions system is probably the most favoured form of student interaction in the SANDF. This was done to such an extent that groups were formed to discuss, deliberate and produce a single learning product. As such, two or more such groups could be formed in a programme. However, two or more groups cannot and were not allowed to produce one and the same learning product. According to the participants, producing the same learning product was as the result of 'cut-and-paste', which was not allowed. In some instances, this activity resulted in court martial proceedings being convened against the students involved. On the same token the participants claimed that the opportunity for students to express themselves freely was afforded; but again, the students' answers were not supposed to be same. The encouragement of open dialogue was not supported and valued by all participants. Again, there was no policy in the SANDF that fostered or mentioned the need for students to be allowed the freedom of expression. Hence, there was a lack of student support, which was supported by the policy.

Communication between students and instructors was vital in the distance learning mode of instruction. The participants said that communication between instructors and students was spelled out in the 'course instruction'. The 'course instruction' mentioned that the students must not hesitate to contact the instructors in time of need. This communication took place during contact and residential phases. One participant mentioned that communication between instructors and students was still paper-based. This meant that they were still relying

on the telephone and facsimile to communicate. The reason was that the technologies still utilised in the SANDF distance learning institutions included the computer, telephone, facsimile, intranet, and lotus notes. The intranet and lotus notes were means of communication utilised widely by members in the SANDF. The utilisation required the installation of the local area network (LAN) on the premises. The disadvantage was that if such LAN was not installed, the communication could not happen. Thus, student support in the form of two-way communication could not take place. Freedom to communicate is restricted in the department of education. Freedom in…education is referred to as a study environment in which individuals have the ability to study and act, to go to his or her study goals according to his or her own will (Hrubý, 2008:14).

The reasons to have distance learning by the distance learning institutions in the SANDF are numerous. Some participants claimed that they utilised the distance mode of instruction to achieve specific outcomes in that it exposed students to better knowledge, fostered development, and brought about more skills. As one participant said 'it was used for life-long learning'. The evidence suggested that distance learning was also used to fast track the learning process in the SANDF. This was done mainly to deal with the backlog experienced in other AoSs; especially in the South African Military Health Services (SAMHS).

In addition, distance the learning mode of instruction at SAMHS was used not to keep professional people like medical doctors for longer periods in class than was necessary. It was also suitable for the South African Army as it was the largest AoSs in the SANDF. Hence, distance learning instruction was used to accommodate as many students in one class as possible. Preparation of instructors for distance learning in the SANDF was attained by preparing instructors in the National Qualification Framework – four. This qualification included knowledge of instructional methodologies, assessment or evaluation strategies, moderation processes, etc. Various institutions around the country including the SANDF's College of Instructional Technology offer this qualification.

According to the responses the SANDF distance learning institutions do not experience drop outs and failures in their programmes. Instead, these institutions would normally experience students withdrawing from the learning programme for various reasons. Some of these reasons were due to the level of educational qualification in a specific learning programme. The level of student educational qualification might not be suitable for a specific programme. The reason for this is that the SANDF does not necessarily subscribe to strict educational student entrance requirements into its learning programmes. A student is accepted for any

SANDF learning programme according to the rank group of that specific programme and where the student is deemed to be at that rank level. The participants explained that the instructors were available to offer extra lessons, as a kind of student support, for students to catch-up. Other reasons for students to withdraw from the learning programme were associated with failure to hand in tasks and general lack of discipline.

Because the practitioners of distance learning in the SANDF were not necessarily involved in the designing of distance learning programmes in their respective institutions they found that the learning content that they had to work with to be prescriptive. The participants said that they received their guidelines from the higher authorities. They also mentioned that they did not design the curriculum as it was designed for them. The curriculum was designed for them by their respective ETD Directors who made use of 'specialist' in designing the curricula. The Directors specified to the training management what they wanted in the curricula. The training management, including the instructors in certain instances, were only required and allowed to design the modules from the curriculum. Even at this stage, they were not allowed to change nor modify anything. Thus, there was a lack of support on the part of the authorities. Some of the distance learning institutions had to adhere to the specific AoSs doctrines. Hence, the distance learning content in the SANDF distance education institutions was largely prescriptive. The prescriptiveness of the content was also evidenced by the lack of freedom and student support allowed in the selection of the content.

According to the participants, the content must look exactly the same as the prescribed curriculum. The distance learning practitioners could not select the content of their own. They may neither change nor modify it. It had to be designed according to the client's needs. The client in this case was the specific ETD Directorate. Hence, the distance teaching and learning approach had to adhere to the outcomes-based education. Likewise, deviation was not allowed from the fixed content. The distance learning practitioners had to stick to the given learning strategy and strive to attain the outcomes as given by the higher authorities. The distance learning institutions in the SANDF also made use of the study guides. These study guides contained learning tasks that emphasised certain roles to be played by the students. The tasks must be played according to the student's specifications or mustering. The authenticity of these tasks in the study guides sometimes caused the problem of 'cut-and-paste'. The students had the tendency of copying each others work. They produced exactly the same work as the others.

It must be concluded that the DOD or SANDF distance education policy had been designed and developed long ago, but has not been promulgated yet by the higher authorities. Hence, it follows from the responses that some of the SANDF distance learning institutions did not utilise the policy or have not seen it. But, on the other hand, participants at the SA Army College stated that they think that they were in line with the policy. The lack of distance education policy in the SANDF affects a number of distance learning matters. For example, the participants mentioned that there is no official policy on the free expression of ideas by the students. Hence, the students might seem afraid because of the possible negative repercussions on the expression of ideas.

As the aim of the study was to determine what the requirements are for the design of distance education programmes with regards to identifying the nature of discipline and dialogue and how drop out and student support manifested themselves in a distance learning environment, it was clear from the evidence assembled that there is a lack of 'student support', especially, as such support should be a characteristic of distance learning in the SANDF. However, the provision of instructors in all the subjects and the provision of extra lessons, in the case of withdrawals as they do not experience drop out and failure, does not provide enough evidence of their role in student support endeavours. The students were, however, encouraged to manage their study and learning time wisely and effectively. The students were encouraged to contact and communicate with each other, and they were also encouraged to contact and communicate with the instructors instead of instructors contacting them. Therefore, it meant that it remained the responsibility of the students to contact and communicate with their instructors. It was only then that their inputs were considered although that would not change the content. Thus, student support in the form of two-way communication is lacking. Therefore, communication appears to be one-directional. Communication is 'instructional' telling students what to do with little opportunity to engage in a true dialogue style and form. The prescriptiveness of the content was also evidenced by the lack of freedom and student support allowed in the selection of the content. Again, there was no policy in the SANDF that fostered or mentioned the students' need for freedom of expression. Hence, there is a lack of student support, which has to be supported by the policy.

8.5 EFFECTIVE APPLICATION OF DISTANCE EDUCATION IN THE SANDF

As the evidence suggested and for reasons as I have explained the way in which the department of defence applies distance education appears to be outdated. According to Moore's theory (TD) the SANDF has to bring their education environment, and more specifically DL, in line with present day requirements. The students involved in DL are for

the most part, if not all of them, senior military personnel and they have to meet the challenges that the SANDF are confronted with. These challenges are varied and have to be answered adequately. These senior military staff members have, through their work, been exposed to similar situations and they already have experience in such matters. Therefore, they know what it is about and they can effectively assist in the design of DL courses because of their experience in military matters. These senior students must be allowed to discuss matters concerning their study courses with each other and with their instructors.

While Sullivan and Rocco (1997:[s.p.]) are saying distance learning activities could be designed to fit the specific context for learning and Nash (2004a:[s.p.]) is saying instructional designers who followed standard, one-size-fits-all best practices … were out of touch with the realities of today's military service, we need to take certain military issues into consideration. For instance, the military culture comes into mind. Historically, the military has been known and understood to follow a more formal way of doing things. The military is structured to carry out its aims and objectives in a prescriptive and standard way. Thus, as Wilmore (1990:[s.p.]), observed, there was no such thing as participatory … management. This is based on the organisational philosophy of the military as a totally autocratic institution.

The education and training requirements in the SANDF are more specific. The SANDF needs to maintain a high level of military professionalism and provide skills that are linked to work and national standards. These skills require making the SANDF students and soldiers more knowledgeable than the ordinary student in a distance education course. Although DE, in the SANDF, in general is good, it is advisable for adult students with varying abilities and experience. Senior SANDF staff members are in effect highly trained and competent professionals. As such, they can be as much teacher as student. When applying DE in the SANDF it must always be kept in mind that the process is directed to like-minded individuals.

8.6 RECOMMENDATIONS AND IMPLICATIONS OF THE STUDY

The recommendations and implications are addressed to the following focussed groups with regards to this study:

8.6.1 Recommendations and implications to the DOD Training Command

First and foremost, the DOD Training Command and other higher structures should be fully committed to the entire education, training and development, and specifically distance education. Development and planning of a holistic distance learning system in the SANDF should not be left to the directing staff only as this result in the training and education for the

sake of training and education (Esterhuyse, 2009:122-123). A proper distance education policy should be researched, designed and developed. The implication is that a number of distance education issues should be institutionalised so that nothing pertaining to distance education could be left out. Hence, the practice of distance education in the SANDF would not lack authenticity, originality, and authority. Specialists to undertake this task could be identified and supported by higher DOD ETD authorities. On the same token higher DOD ETD authorities must be able to support these endeavours in order for them to promulgate such policy. A number of issues pertaining to distance education should be categorically spelled out in this policy. An example of such issues in distance education policy is presented by the University of Pretoria University (2009:5-9). A number of some of these issues is mentioned below.

8.6.2 Recommendations and implications to training directors

Kember (1989:199-209) cited by Fraser and Nieman (1995:22) listed academic environment and integration as two of several variables influencing the drop out process in distance learning. He says that the academic environment embraces aspects such as study materials and academic assistance. In other words, student support should be seen as central to distance learning. This should be the basis for answering challenges associated with distance education as mentioned in the study. Student support, as the critical component of distance education, should be integrated in this programme evaluation. In addition, as discussed in the study by Sharma (2002) and Rumajogee, (2002), [pages 86-93], the distance education support system in the SANDF could include issues such as library facilities and reading rooms equipped with advanced technology; preparation of examination techniques; mutual design and development of distance learning programmes; encouragement of dialogue and interaction; well-prepared study materials; internet and telephone facilities; close personal support; well-prepared guidelines and instructions; instruction on the preparation of assignments; immediate provision of information and feedback; structured supervision, counselling, and mentoring programmes; motivating students to continue their learning; student or peer support groups; career guidance, etc. The implication is that all facets of student support should be institutionalised. Development of curricula has to be made to democratise the process by involving everyone concerned – directors, coordinators, developers, instructors and learners (Du Plooy, 2006:75).

8.6.3 Recommendations and implications to instructional designers

Distance education programme designers should be specifically qualified in distance education, as the design of distance education conducted by inadequately qualified designers

in distance education would lack authenticity. The authorities should take into consideration that distance education does not involve ordinary qualifications. Distance education qualifications are based on sound theoretical grounds such as Moore's 'Transactional Distance'. These qualifications should be able to equip designers with theoretical distance education foundations. A certain level of student involvement in the design of distance learning programmes should be considered. Students should not only be involved in the feedback they provide at the end of courses, but also during the design and development stages.

The use of other advanced technologies like video-conferencing, tele-conferencing, etc. should also be looked into. Specialists should be identified and undergo education and training on the use of these technologies. The DOD Command, Management and Information division should play a leading role with the utilisation of technology in the DOD ETD environment. The DOD training institutions should be able to benchmark with each other on the use of such technologies and other distance education matters. In addition, student support should be institutionalised and form part of the DOD distance education policy. Lastly, a culture of 'dialogue' should be inculcated throughout the distance learning practices in the DOD. This point must be supported by the constructivist theory that, in a discussion, students should be allowed to contribute their views, that is, the exploration of ideas through discussion. Training should not be done for the sake of training. The emphasis should be on the type of training, how and why it is given… (Bernardes, 2008:67). Education, Training and Development and specifically distance learning in the department of defence should be able to reflect the resolve of the South African society. Learners should be developed into active and well-informed citizens of the broader educational society (Daniels, 2007:24).

8.6.4 Recommendations and implications to instructors

In the setting of the current study, the solution of performance excellence in the DOD distance learning was envisaged. The fact is that 'performance excellence' is composed of programme structure and design and development, subject structure/student assessment and programme evaluation, student support, motivation, learning theories, and other factors, qualities and characteristics associated with transactional distance supposed to be found in any ideal instructional design. Providing instruction by means of distance education in the department of defence should not be seen as a 'quick fix' solution to speed-up promotion, to remove backlog, or to solve other ETD related problems because, as such, it would be inadequately designed. The designing of distance education would lack the proper attention and thorough research of such programmes taking the distance education theory and/or doctrine into

consideration. It should be utilised to empower students to be better leaders with the ever-changing military challenges. It should also be seen as saving on educational costs. The need to provide instruction through distance education in the DOD should be thoroughly researched. It is suggested that the programme evaluation discussed earlier in the study [pages 82, 109-110], could be implemented. As discussed this programme evaluation includes such issues as the following:

a. Students focus on clear goals, that is, they are goal oriented.
b. The students determine the goals, learning experiences, and evaluation decisions of the learning programme, evaluation is based on final products, and self-evaluation is encouraged.
c. Education as a process of knowledge construction.
d. Learning focuses on knowledge, gathering of information and application.
e. Diverse needs are catered for.
f. Students are guided to the desired behaviours.
g. Individualised instructional approach (these could take the form of facilitation, coaching, induction, counselling, etc).
h. Instructors are facilitators and a product is produced in a more facilitative nature than prescriptive.
i. Students are guided by the principles of problem-solving and decision-making.
j. Learning involves continuity and repetition.
k. Creation of appropriate conditions for learning.
l. Students construct their own learning.
m. Students interpret information/learning based on their experiences.
n. Individual uniqueness is encouraged to single out talents and skills.
o. Dialogue; open dialogue is encouraged, supported and valued by all participants.
p. Opportunities of dialogue are built into the learning programmes.
q. Student to student dialogues and student to instructor dialogues are encouraged.
r. Students are organised into groups to solve problems through exploration and discussions.
s. Structure reflects the capacity to respond to students' needs.
t. Flexibility of structure, evaluation methods, and objectives are reflected in the learning programmes.

8.7 CONCLUSIONS

The findings of the study led to the conclusion that the character of structural design of distance learning programmes in the DOD resembles that of a disciplined approach; and is

thus prescriptive. The prescribed nature of the structure in the design and development of distance learning in the SANDF was more preferred than interaction. This was why Moore argued that the more 'discipline' or structure, and the less the dialogue there is, the larger the 'gap' or transactional distance between student and instructor (Moore, 1993 cited in Keegan, 1993:24). This resulted in a tension in the interplay of dialogue and structure. The DOD distance teaching and learning programmes were pre-planned and prescribed down to the last detail, so that student needs were not taken into account. The DOD teaching and learning institutions, as military institutions, set formal standards and specific requirements that have to be followed. This could be a reason why all the participants agreed that they did not have a problem concerning drop outs and failures. It can thus be concluded that the formal character of the structural design of the distance learning programmes in the DOD does not allow nor cater for the needs of students for negotiation about transactional dialogue.

The policy to allow the students to make spontaneous contributions was lacking. Thus, this leads to conclusion that the design of teaching and learning material in the DOD distance learning environment does not allow for dialogue. Equally so, the DOD distance education policy does not support the kind of dialogue and interaction between the role players as it is lacking. This practice suggests that student support in the DOD is one-sidedly imposed rather than mutually negotiated. It is therefore then concluded that student support in the DOD distance education does not address the requirements of dialogue in distance learning settings.

As understood in terms of Moore's transactional distance theory, the assumption is *that the more structure is captured as part of any distance learning programme, the more the transactional distance becomes* (Moore, 2007:[s.p]; Holmberg, Moore & Peters, 2007:427 and 458; Dron, 2006:[s.p]; Gorsky, & Caspi, 2005:2-4;De Ture, 2004:21; Dron, Seidel, & Litten, 2004:163; Wallace, 2003:245; Lowe, 2000:1 & Shearer, ([n.d.],[s.p.])). Structure here does not only refer to the teaching and learning facilitation strategies one would engage at classroom, course, and programme levels, but also to the substance, ordering and arrangement of the learning content that finds its way into the course curriculum. This applies specifically to the disciplinary approach that at times structures and embraces the learning content. The more prescriptive the learning becomes, the less the opportunities exist for students to engage constructively with the learning material. Such discourse is limiting dialectic opportunity, contributes very little to the development of autonomous learners, and the autonomy is lost as the most 'ideal speech situation' as advocated by Habermas. Dialogue is then not symmetrical meaning that communication becomes a 'one-way' mode of operation.

Communication finds its way into the system as authoritative power source, where dialogue's main task and function is to vest the interest of the organisation such as the department of defence and programme directors and not the emancipation, liberation and empowerment of the learners on a programme. Students and lecturers find it difficult to engage constructively academically. This is also as a result of lack of enough time spent on rigorous debate, reflection and, eventually, the internalisation of knowledge (Esterhuyse, 2009:119). Learner-to-learner academic discourse and freedom of interaction is hampered as the result of authoritarian and prescriptive doctrine of a structured curriculum. As the 'speech situation' has now become ideal – because of the one-directional dialogue or discourse (Welch & Reed, 2005:32). The discourse or effective and sustainable student support lies vested within an organisation's ability to transfer existing first generation distance education modes of delivery, to situations where the mutual exchange of experience (shared experiences between learners and lecturers) leads to 'Mündigkeit' as Habermas in his thesis of communication (Thompson & Held, 1982:59). The suggestion of 'Mündigkeit' qualifies a person to exit learning as authority, expert or knowledgeable person. He or she has therefore divorced him- or herself for appearance (Thompson & Held, 1982:47).

The researcher therefore asks the question whether the main task and function of distance education practices within the department of defence is to create an open-learning environment based on classical adult practices, allowing freedom of speech, the freedom to question approaches, practices, discussions, suggestions, ideas and solutions to problems under discussion. One should however not divorce the notion of 'freedom' and 'symmetrical dialogue' from the power structures of 'discipline' and 'autonomy'. But the paradox between the listed constructs does not go unnoticed. The open 'ideas' behind the disciplinary nature of content, concepts, constructs, outcomes and objectives nourish a constructive discourse required in a developmental or building process.

8.8 SUGGESTIONS FOR FURTHER STUDY

Although several important findings emerged in this study, certain limitations of the study should be noted. One limitation was its generalizability to other settings. In the military, issues were not necessarily discussed or negotiated. The way of life in the military is pre-planned and largely imposed on members. While the researcher had planned to involve students in his interview schedule, the students were deliberately and, maybe purposefully, not provided. Thus, this study was conducted without the involvement of students as being most affected by the topic of the study. Therefore, it is strongly suggested that the involvement of students in similar studies could have a beneficial effect on the result.

The researcher was not able to locate relevant studies done in the military. While some studies on distance education in the military dealt with the impact of distance learning in those situations; others dealt with reasons for providing instruction through distance education. Thus, the researcher was not able to locate studies that addressed 'Transactional Distance' in the military per se. Therefore, it is strongly suggested that studies that address 'Transactional Distance' in the military would be of value to studies of this nature.

Such studies should also be a 'buy-in' for the higher authorities from the start. If higher military authorities support such studies from the beginning, it would yield better results. This support would allow the researcher access to the relevant student population. It would also secure much needed financial support to conduct such a study. In addition, action research and participant observation as a research methodology is well-suited for such studies. All these recommendations would of course benefit if adequate time is made available to execute such studies.

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APPENDIX A

Summary of education, training and development problems and recommendations as reported by the DOD ETD Project Team in 1997.

1. Department of Defence (DOD) instructors

During the assessment period, the DOD ETD Project Team realized that a shortage of qualified distance learning instructors at most training institutions was a general trend. Very few institutions had more than two members qualified at the Ed Tech 2 level (or train the trainer programme). This problem was exacerbated by the personnel climate where units were forced to utilize "unqualified" instructors and hence could not release the instructors to obtain the necessary ETD qualifications. In certain units, the training task was severely impeded by the shortage of instructors. This situation leads to certain distance teaching and learning functions being ceased owing to a lack of training personnel.

In certain instances the majority of instructors were executing their training functions out of goodwill but were negatively affected by diminishing resources. The fact that training of a high standard would still being presented was attributed to the positive attitude and conscientiousness of these members. In other instances personnel policies of other institutions was also found to be the cause of the problem. For instance, in the SAAF pilot contracts impacted negatively on the retention of flying instructors. This situation was further exacerbated by lucrative offers offered in the civilian aviation. This problem was also experienced in the air-traffic control and artisan environment.

The DOD ETD Project Team recommended that consideration had to be given to the contract system (especially in the case of pilots) and the timing of the placement of instructors in order to maintain a capacity. This aspect had to be liaised with the Provide Personnel process. The Team further recommended that optimal utilization of an institution such as the College of Educational Technology (COLET) had to enjoy consideration. These institutions had to have an adequate capacity for the training of a large number of distance learning instructors and remuneration of ETD practitioners and a specific career path, in order to retain competent practitioners, must be considered.

2. Department of Defence (DOD) learning courses

In general, the Project Team felt that very good distance training programmes were presented in various Arms of Service (AoSs) but suffice to say that there were problems. For instance, training that was common to all four AoSs or within an AoSs was not co-located or centrally

coordinated. This practice was an unnecessary duplication of courses that lead to inappropriate utilization of support personnel, resources and facilities. In certain instances, there was very little or no coordination between training institutions regarding the common distance learning courses or training requirements they present.

It was also discovered that the problem of coupling courses to promotion lead to courses being done for the purpose of qualifications only and not necessarily for personnel development. This practice did not inculcate the right attitude to learning and usually the member did the course too late in his/her career. More often than not, the member mastered most of the skills required by means of "in-service" training and merely completed the course for qualification. Most training was qualification based instead of being outcome based.

The Project Team felt that the practice of using courses as a means of evaluating personnel (especially at staff course levels) should be called into question. It further suggested that another question should be raised about the mentoring, advisability and/or support of all officers undergoing staff training at distance learning. A staff qualification was required for promotion to a certain rank level. The Team further discovered that most courses in the SANDF (with a few exceptions) did not make provision for the training of the Reserves or Part Time Force (PTF) component (as part of the "one force concept"). This was also evident within the civilian component widely known as Public Service Act Personnel (PSAP).

The Project Team recommended that the control of ETD had to be centralised in order to bring about the co-ordination of providing ETD opportunities. In addition, training for personal development and training for operational functions would have to be separated where possible. If this was unavoidable clear command and control guidelines had to be provided. The Team also suggested that the outsourcing of non core-business ETD had to be investigated and central co-ordination of outsourcing had to be a pre-requisite.

The Team further recommended that the possibility of joint training where applicable and possible had to be investigated. In addition, co-location options regarding common distance training and the possibility of outsourcing aspects, in order to eradicate unnecessary duplication of ETD, had to be investigated. The Team further recommended that all ETD had to be post related. This would imply that PSAP would undergo the same training as uniformed members (commonly known as Defence Act Personnel – DAP). In addition, specific requirements of the PTF regarding ETD had to be taken into account while foreign ETD opportunities and tertiary training for these members had to also be investigated. The

Team further recommended that the focus had to shift from focusing on qualifications to competencies and outcomes. Greater client involvement had to be required in order to spell out the competencies that a person, group or organisation would require in order producing a specified outcome.

3. Infrastructure and facilities

The DOD ETD Project Team realized that the DOD had numerous training facilities in various locations around the country. These facilities varied in quality ranging from distance learning tailor made to make shift facilities. Most training facilities were experiencing problems in being maintained owing to budget constraints and Public Works Department (PWD) ineptitude and diminished capabilities. A number of training units used private funds to undertake necessary maintenance. The implication of this situation was that the majority of training units would not be able to provide, adequately, distance learning as mode of delivery in such existing infrastructures and maintain the bare minimum standard for much longer.

In general, ETD infrastructure appeared to be sufficient in terms of accommodation. The quality of the infrastructure varied greatly. The spatial geographic distribution of training institutions had the effect that a number of facilities were under-utilized and/or not suitable for distance education. This situation impacted negatively on the maintenance as discussed above. At the time of the assessment by the Project Team, a number of institutions were awaiting capital building and maintenance programmes to be implemented. However, according to the team, in certain instances a large amount of capital earmarked for a building and maintenance project appeared dubious in terms of the distance learning output or outcome.

The Project Team recommended that the optimal utilization of facilities had to be attained by means of co-location, re-organisation and central control where applicable. Where facilities were no longer, economically viable demolition had to be considered. The Team further recommended that unit commanders had to be provided with the means to maintain their facilities by transferring the PWD budget allocation to the DOD. This would have to be liaised with the Provide Logistics process.

4. Technology

According to the DOD ETD Project Team, good distance learning technology opportunity was available in the ETD environment within the DOD but a lack of coordination existed regarding the acquisition of computer hardware and software. In the absence of a clear

distance learning policy in this regard, each AoSs operated virtually independently. This resulted in a lack of standardization, leading to software integration problems, unnecessary duplication and in certain instances, under utilization of technology in distance learning mode of delivery.

The Project Team recommended that a clear distance learning policy be formulated in the ETD environment and all ETD technology acquisition had to be centrally coordinated. In addition, close liaison with the CMI and Acquisition processes had to be maintained.

5. Tertiary training

The DOD ETD Project Team reported that the Military Academy, situated in Saldanha, Cape Town, was under utilized and functions mainly as a military university and not as a military academy (such as the US Army Academy, West Point in the USA). Unlike the US Army Academy, the distance learning programmes were non-existent in the Military Academy. The then Medium Term System (MTS) applicable to a significant, number of students would provide a poor return on the educational investment made by the DOD. Other ranks were severely neglected in this field. Tertiary education was almost exclusively reserved for officers. The Project Team recommended that tertiary training of Warrant Officers (WOs) and Non-Commissioned Officers (NCOs), where applicable, had to be investigated and the establishment of an NCO/WO academy had to be considered to address the problem.

The Military Academy introduced distance learning format in 2002. It now offers three learning programmes in this mode. The entry requirements for the two options differ significantly. In the distance learning option, there are no restrictions on rank, age or marital status. These programmes allow students a maximum of six years to complete their studies and available to all serving members of the SANDF, the DAP and PSAP.

One such programme is a B Mil programme in Human and Organisation Development. This programme focuses on knowledge, skills and competencies required to function effectively in the area of human resource and organizational development. Both learning options, residential and distance are presented at Certificate, Diploma and Degree level. Successful completion of each qualification is required for advancing to the next level.

APPENDIX B

Statement of survey findings (unpublished) on the causes of non-completion of COLET programmes; with special reference to the role of tertiary education and training that some students were pursuing between 1998 and 2002 reported by Moatlhodi in 2003.

1. Why some students do not complete COLET learning programmes in terms of assignments and assessment preparation?

   a. According to the information gathered only 50.7% of students were able to complete their learning programmes, whereas 41.8% did not complete their learning programmes and 7.5% of them did not respond. This can be attributed to the following factors:

      i. Workload.
      ii. Support from supervisors.
      iii. Lack of knowledge on ETD.
      iv. Being compelled to register with COLET.
      v. Student's Academic level.

2. What influence do tertiary academic studies have on students whilst registered with COLET?

   a. According to information gathered, tertiary academic studies do not impact much towards the completion of COLET's learning programmes. Only 31.3% indicated that they were registered with COLET and other tertiary institution. This is supported by the following factors:

      i. Dual registration.
      ii. Support from lecturers/facilitators.
      iii. Hindrances that prohibited them from submitting their assignments on time.

3. What are the influential factors on this matter, in particular the role played by workplace environment (as this is the distance learning mode)?

   a. It is shown in the information gathered that 58.2% of students do get support from their supervisors and 70.1% from their colleagues. 38.8% of the supervisors requested progress reports from the students. This is supported by the following factors:

      i. Support from supervisors.
      ii. Support from colleagues.

4. Is the non-completion of compulsory assignments submission the same for COLET and the Tertiary Education programmes?

   a. The students who were registered with COLET and other tertiary institution did experience some problems. The workload factor is the one that has been mentioned from time to time.
      i. Workload.
      ii. Hindrances that prohibited them from submitting their assignments on time

5. What can be done to motivate/encourage students to complete their programmes on time?

a. Allocation of time for submission of assignments.

b. Provision of facilities and resources.

APPENDIX C

Pilot study results done by the researcher with COLET facilitators in 2003 on distance learning problems experienced by instructors.

1. No clear guidelines.
2. No clear methods to be used.
3. Students do not complete their work in a Distance Learning mode of delivery.
4. Members of the DOD are not familiar with this type of learning or are not ready.
5. It is difficult to teach a skill (like Facilitation) by means of Distance Learning.
6. Distance Learning is not always a good or best way of learning as students learns in different paces (e.g. slow students).
7. Facilitators do not check if students need help or not in a Distance Learning.
8. Technology used to present learning programmes is obsolete and old fashioned.
9. The DOD is not geared for Distance Learning because we place too much emphasis on the facilitator and not encouraging the student to take responsibility for their own learning.
10. Adult learning or "student-centeredness" approach is preached but not practiced.
11. The DOD members are not committed to DL and their attitude needs to change.
12. The programme content does not determine the delivery mode.
13. Learning material is still not geared for Distance Learning.
14. Distance Learning is not implemented correctly.
15. Distance Learning approach is not transparent to students.
16. The Quality Assurance system or the Systems Integrity is not in place yet.
17. Guidance and counselling on time management is not considered in this mode.
18. Administration, support systems and contact with students is not up to standard.
19. Access to information is not made easy and simple.
20. The DOD had not prepared our students for changes to Outcome Based Education in a Distance Learning mode.

APPENDIX D

Distance learning institutions and their corresponding programmes in the DOD as determined by Viljoen in her unpublished doctoral thesis (1999)

1. School for Tactical Intelligence: Formal training for the Reserve Force SA Army Intelligence Corps members.

2. School of Armour: South African Armour Corp (SAAC) senior battle handling courses. 03 / 04 Regimental Cdr Course.

3. SA Army Engineer Formation: Reserve Force Training.

4. School of Artillery: Currently none but envisaged for Permanent Force & Reserve Force in future.

5. Infantry School: All senior courses.

6. SA Army College: Junior Command and Staff Duties Course (theory).

7. SA Naval Staff College: JSWC MoD 1 ROY Reserve Force.

8. SAS Simonsberg:

    a. PWO (to some extent).
    b. EW (limited use).
    c. SWO 1 & 2 (limited use).

9. SAS Saldahna: The Military Training for ratings Part 3 Reserve modules is partly presented at a central Reserve Unit (normally in East London or Port Elizabeth). Whether this can be defined as comprehensive DL is debatable.

10. SA Air Force College:

    a. Senior Air Power Program (Partly distance).
    b. Junior Command and Staff Course (Individual Study Phase).
    c. Senior Supervisor Course (Individual Study Phase).

APPENDIX E

Focused group interview questions

1. What is the distance education (DE) teaching and learning character of this institution (or in your Arm of Service)?

2. How are your distance learning (DL) programmes designed in this institution? or What are the requirements for designing DL programmes?

3. How are students encouraged to achieve the intended outcomes?

4. What impact does transactional dialogue has on students, what are their comments on the impact of dialogue?

5. What is the involvement of students in the designing of DL programmes?

6. What had been your experiences with the DOD ETD Process?

7. What do you do to encourage students to talk to each other / What do you do to encourage or foster interaction?

8. What do you do to encourage students to express themselves freely / How do you allow freedom of expression?

9. How do students and instructors negotiate communication across transactional dialogue?

10. What are the reasons for considering DL mode in this institution?

11. What technologies do you use (is applicable) here in this institution to talk to students when they are far away?

12. How are your DL instructors prepared for DL instruction in this institution?

13. What has been the impact of drop-out and failure of students?

14. What is your opinion about the DOD DL policy?

15. How can the existing problems be solved or addressed?

APPENDIX F

Original responses of the Army College focused group and codes allocated

1. What is the Distance Education (DE) teaching and learning character of this institution (in the SA Army)?

TLC1: Students are given a 'workbook' to prepare for distance learning (DL) during the preparatory development (Prep Dev) phase.
TLC2: We have the induction week.
TLC3: We have the contact sessions.
TLC4: We have the residential phase.
TLC5: Our distance learning (DL) is content-based.
TLC6: Our learning is self-regulated learning.
TLC7: Our teaching and learning is collaborative in approach.
TLC8: We apply adult approach where students are responsible for the planning, designing and assessing their work is used.
TLC9: Our students are able to continue their learning in their places of work where the Army College is able to continue assisting them.
TLC10: We apply formative assessments.
TLC11: We apply summative assessments.
TLC12: We make sure our students are not isolated.
TLC13: The Army College model is called learning management system (LMS).

2. How are your distance learning (DL) programmes designed in this institution? What are the requirements for designing DL programmes?

DDLP1: Our programme designs are based on problem assessment, redesign & implementation.
DDLP2: They are in accordance with the curriculum.
DDLP3: They include the training purpose.
DDLP4: They contain the specific outcomes.
DDLP5: They contain the exit level outcomes.
DDLP6: They include the assessment guidelines.
DDLP7: They contain the learning strategy.
DDLP8: They are based on the learning content.
DDLP9: They have the overview of the facilitation approach.
DDLP10: They are based on the student pathway.
DDLP11: They are designed with the LMS in mind.
DDLP12: They have the references.

3. How are students encouraged to achieve the intended outcomes?

AIO1: The students must be found competent in the specific outcomes during the distance education module (DEM).
AIO2: Before the students attend the Residential Module (RM) they must be found competent in the DEM.
AIO3: The role of outcomes-based education (OBE) is emphasized.
AIO4: We adhere to the principles of Assessment.
AIO5: They are told verbally of what is required from them.
AIO6: They are also practically shown.
AIO7: They are constantly reminded of the intended outcomes.

4. What impact does Transactional Dialogue has on students, what are their comments on the impact of dialogue?

TD1: All the subjects have an instructor.
TD2: Instructors work day and night giving feedback.
TD3: Students are being mentored all the time.
TD4: There are time frames to submit some assignments through the LMS.
TD5: The students are measured on what they submit.
TD6: In their units we sensitize the supervisor and unit commanders about the student's programme.
TD7: We write a letter through Chief of the Army to communicate that.
TD8: We encourage their units to give students timeframes of doing their work during working hours (but not the whole day).
TD9: In terms of communication we are reminding them about the target dates to submit not to wait for the last date.
TD10: When they are going back to their units they must present the programme (to their Supervisors) that is created on the milqual (Military qualification).
TD11: Students are told that DL is a lot of work they must be very dedicated.
TD12: We are committed to communicate with the students than having the student in the classroom the whole time.
TD13: There is lot of communication through the telephone; the students are not left behind to sit on their own.

5. What is the involvement of students in the designing of DL programmes?

LID1: Students are not directly involved in designing the DL programmes.
LID2: The student's debriefs assist in upgrading / changing the Army College DL system.
LID3: We also take lots of student's inputs into consideration.

6. What had been your experiences with the DOD ETD Process?

ETDP1: We haven't seen that in a long time.
ETDP2: We don't really apply it on paper, but some of it.
ETDP3: As said before, we do problem assessment, redesign & implementation.

7. What do you do to encourage students to talk to each other / What do you do to encourage or foster interaction?

LI1: This is mentioned in all the documents and is discussed with the students all the time.
LI2: The senior instructor discusses this with the students as the skill to be learned.
LI3: They send them messages by e-mail through the LMS function.
LI4: The communication is immediate and directly.
LI5: The target of the contact session is to communicate with the students.
LI6: They are informed well in advance if there is something to take note of.
LI7: The subject is designed such that students can participate in groups.

8. What do you do to encourage students to express themselves freely / Do you allow freedom of expression?

FE1: The opportunity to speak is always afforded to the students and they love to speak.

FE2: Small group discussions are meant for students to express themselves.
FE3: When the students mingle, they can say whatever.
FE4: During the facilitation process, they are free to say anything.
FE5: Debriefs every week are meant for students to participate.
FE6: There is also a feedback on the exercises they submitted through the LMS to get now physically with the DSs on one-on-one.
FE7: In DE, we focus on theory so that students can express themselves.

9. How do students and instructors negotiate communication across Transactional Dialogue?

L/ICTD1: We tell them what is expected of them and what they'll be able to do as learning is an emotional thing, it's not only cognitive.
L/ICTD2: When we communicate with them, the communication is clear of what is expected of them.
L/ICTD3: We encourage them to work collaboratively.
L/ICTD4: Authenticity is always a problem because some students do not always render their own work.
L/ICTD5: The discussion of the problem is not done once during the introduction, it is done continuously.
L/ICTD6: The instructors are always available after hours for students to catch-up.

10. What are the reasons for considering DL mode in this institution?

CDL1: The DL phase of the course or module must lead to the reaching of specific outcomes as stated in the curriculum.
CDL2: DE is focused on getting the students to understand the residential phase.
CDL3: The Warrant Officers (WO) module students do the practical side theory on DOD policies and DOD Instructions at the College for the Regimental aspects on the parade ground.
CDL4: It helps to expose the student to a larger spectrum of knowledge.
CDL5: The person develops far better understanding and is supposed to be more skilled.
CDL6: The student must be able to take the DE as his own and develops as a life-long student.
CDL7: The student is able to optimize his own potential to stay positive.
CDL8: It enables the students to challenge themselves of what is expected of them.
CDL9: DE is now a guideline that all courses should consider to implement.
CDL10: There are a lot of advantages in DE.

11. What technologies do you use (is applicable) here in this institution to talk to students when they are far away?

TEC1: Telephone.
TEC2: Fax machine.
TEC3: Computer.
TEC4: The Intranet (LMS).
TEC5: Laptop.

12. How are your DL instructors prepared for DL instruction in this institution?

DLIP1: Some instructors did a Postgraduate Certificate in Higher Education (PGCHE) at Pretoria University.

DLIP2: We attend ETD Conferences.

13. What has been the impact of drop-out and failure of students?

DOF1: The students withdraw from the course due to unforeseen circumstances like a family tragedy.
DOF2: We do not necessarily produce failures.

14. What is your opinion about the DOD DL Policy?

DOD DLP1: We haven't seen the policy for sometime now.
DOD DLP2: But we think we are in line with the policy.

15. How can the existing problems be solved or addressed?

PS1: Through sharing your problems with others.
PS2: Through benchmarking with colleagues.

APPENDIX G

Original responses of the Air Force College focused group and codes allocated

1. What is the distance learning (DL) teaching and learning character of this institution (the Air Force)?

TLC1: Students are prepared for DL in the 'study school'.
TLC2: There's an induction session.
TLC3: There's a contact session.
TLC4: There's a residential phase.
TLC9: Diversified DL Centres are utilised by the Air Force College.
TLC10: Formative assessments.
TLC11: Summative assessments.
TLC13: The Air Force College DL model is called the 'individual study'(IS) phase.
TLC14: There are three structured modules (module A, B & C).
TLC15: Facilitation method of teaching is used.

2. How are your distance learning (DL) programmes designed in this institution? What are the requirements for designing DL programmes?

DDLP10: Our programmes must have Pathways.

3. How are students encouraged to achieve the intended outcomes?

AIO5: They are verbally encouraged to achieve the outcomes.
AIO8: They are told of time management.
AIO9: DS telephone numbers that they can use to phone through out the day and also leave the message.
AIO10: A manual of how to study is used.
AIO11: The programme is very flexible in that the student can arrange to write an exam at the suitable time if they have a problem.
AIO12: Students are encouraged to contact each other.
AIO13: We accommodate students as long as students communicate with us.
AIO14: We lack to monitor the progress of students where they are in different places because they are also (or could also) be in different Projects.

4. What impact does transactional dialogue has on students, what are their comments on the impact of dialogue?

TD13: We communicate through the telephone.
TD14: They do communicate verbally their appreciation (they express their appreciation).

5. What is the involvement of students in the designing of DL programmes?

LID1: Students are not directly involved.
LID2: Their involvement only comes out from the feedback or debriefs.
LID5: Students are not part of the planners or designers.
LID6: They are involved through questionnaires.
LID7: They phone if there is something to be rectified in the manual.

6. What had been your experiences with the ETD Process?

ETDP1: No, we don't utilize it.
ETDP2: On the other hand, the DOD ETD Process is not necessarily done or followed formally.
ETDP4: The needs analysis is not done correctly sometimes because of the time factor.

7. What do you do to encourage students to talk to each other / What do you do to encourage or foster interaction?

LI2: We do encourage students to talk to each other and also talk to students who had done the course.
LI5: In the contact session, they do make some arrangements to be in contact (in touch) with each other.
LI8: But copy and paste is not allowed nor encouraged.

8. What do you do to encourage students to express themselves freely / Do you allow freedom of expression?

FE1: We constantly do so, we have told them to express themselves and be analytical.
FE8: We expect that their answers cannot be necessarily the same.

9. How do students and instructors negotiate communication across Transactional Dialogue?

L/ICTD7: Communication is done by face-to-face contact.
L/ICTD8: Communication is still paper-based.
L/ICTD9: We communicate with students telephonically.
L/ICTD10: We communicate through faxing.
L/ICTD11: We communicate during the residential phase.

10. What are the reasons for considering DL mode in this institution?

CDL2: It's a very good idea, on paper, to prepare them for the residential phase after a gap of 10, 15 years.
CDL11: Students are helped to be back into the studying mode in a more or less controlled environment.
CDL12: It is a wonderful way of preparing the student for their promotion.
CDL13: It is used as a developmental vehicle to develop my students into becoming better, better leaders, and managers and to work with a budget.
CDL14: It is meant to give students more information in the Air Force.

11. What technologies do you use (is applicable) here in this institution to talk to students when they are far away?

TEC1: Telephone.
TEC2: Faxing
TEC3: Computer.
TEC6: Lotus notes but not everybody has access to it.
TEC7: Face-to-face contact.
TEC8: It is still paper-based.

12. How are your DL instructors prepared for DL instruction in this institution?

DLIP3: They do NQF level 4 that used to be presented at COLET, Assessor Course, and Moderators Course, Planning and Design course.

13. What has been the impact of drop-out and failure of students?

DOF1: We have withdrawals not failures.
DOF3: We also have students who do not hand in tasks.

14. What is your opinion about the DOD DL Policy?

DOD DLP1: I haven't seen the policy.
DOD DLP3: We haven't used the policy.

15. How can the existing problems be solved or addressed?

PS1: There are a lot of stakeholders in addressing the problem.
PS2: Benchmarking is also another way to address these problems (benchmark with other AoSs).
PS3: Our first step would be identifying the problems as the College running the programme in order to address the needs of the Air Force.
PS4: Formulate a dedicated Working Group from the ETD side, from career planning side.
PS5: There must be a link between the individual study (IS) and residential phase.
PS6: The duration between the individual study (IS) and residential phases must not be too long.
PS7: This joint pathway should also be looked into.
PS8: Things need to be standardized.
PS9: There should be building blocks; one should be finished before proceeding to the next.
PS10: Alignment with pathways.
PS11: We need to do a bit of the needs analysis.

APPENDIX H

Original responses of the School for Military Health Training focused group and codes allocated

1. What is the DL teaching and learning character of this institution (the Air Force)?

TLC2: There's an Induction phase (referred to as 'initial briefing'.
TLC3: We have a contact session.
TLC4: There is a residential phase.
TLC14: Six (6) modules in all can be completed (or settled) in 3 years.
TLC16: Subject specialists are utilised in distance learning (DL).

2. What are the requirements for designing DL programmes?

DDLP13: Our programme design emphasizes on the assignments.
DDLP14: Our programmes require a pre-requisite exam.

3. How are students encouraged to achieve the intended outcomes?

AIO1: Students must adhere to specific outcomes.
AIO5: All course objectives are communicated during the initial briefing session.

4. What impact does Transactional Dialogue has on students, what are their comments on the impact of dialogue?

TD13: Telephone numbers of the course coordinator who contacts the entire module or subject specialist.
TD15: The communication that will take place during the course is spelled-out in the 'Course Instruction'.

5. What is the involvement of students in the designing of DL programmes?

LID1: They are not necessarily involved in designing.
LID2: They give their comments in the "SWOT analysis" format at the end of the course.
LID4: The student's complains are taken into consideration.
LID8: But sometimes the shortcomings are not rectified but only analysed.

6. What had been your experiences with the ETD Process?

ETDP1: No, we don't utilize it.
ETDP5: There are specialized people who design by following a similar process but not necessarily the DOD ETD Process.
ETDP6: Our members are involved (or participate) in other DOD forums where they are trying to design one curriculum so that members of the DOD can be able to speak one language and do the same things.

7. What do you do to encourage students to talk to each other / What do you do to encourage or foster interaction?

LI2: Students are taught certain skills to be able to express themselves.

LI7: They are grouped according to their common area where they come from (in syndicate form).

8. What do you do to encourage students to express themselves freely / Do you allow freedom of expression?

FE1: We have a theory of 'open door' policy.
FE9: Students have the right to approach the Student Committee about their problems.
FE10: The OC holds a meeting with a 6-member Student Committee once a week.
FE11: Well we don't have a policy that encourages that on the ground.

9. How do students and instructors negotiate communication across Transactional Dialogue?

L/ICTD1: We communicate with students through the 'Course Instruction'.
L/ICTD9: Telephonically.

10. What are the reasons for considering DL mode in this institution?

CDL15: There reason was the backlog of people who had been promoted to do the course but could not because of the stagnation within the SAMHS.
CDL16: A very small chunk of people were doing the course that resulted on the course to be very slow.
CDL17: As members of the SAMHS are mostly professionals, like doctors, social workers, etc., it is usually not possible to keep such people in class for long; like for six months in a residential phase (if students are away from the course for 3 or more days they are automatically withdrawn from the course.
CDL18: Students who are professionals like doctors are always in demand or needed somewhere within the SANDF; therefore, they can finish the course in 3 years (i.e. 2 modules per year).
CDL19: Opportunity to include many students in the course at the same time.

11. What technologies do you use (is applicable) here in this institution to talk to students when they are far away?

TEC1: Telephone.

12. How are your DL instructors prepared for DL instruction in this institution?

DLIP3: They do NQF level 4 from COLET and MentoNet.
DLIP4: Some have done Senior Management Course.
DLIP5: Some have Bachelor's degrees.

13. What has been the impact of drop-out and failure of students?

DOF1: Yes we do have drop-outs or those who do not finish the course (those who do not complete a certain part of the module are being withdrawn from the course and come back later).
DOF4: Students are also withdrawn from the course after absent for 3 days.
DOF5: Lack of discipline is another reason for not completing and thus withdrawal.
DOF6: Those who cannot cope due to their level of understanding.
DOF7: Extra classes are being provided to those who lack behind.

14. What is your opinion about the DOD DL Policy?

DOD DLP1: No one at SAMHS has seen it.
DOD DLP3: We don't use it.

15. How can the existing problems be solved or addressed?

PS1: We should be able to talk to others in the DOD.
PS12: The implementation of DL in the SAMHS should be done correctly.
PS13: The resources of DL are scarce or rather not there, so they need to look into the resources of doing teaching and learning in a DL mode.
PS14: Institute SAMHS DL satellites where DL instructors can meet there once to discuss problems they are faced with and address student's concerns.
PS15: These satellites should also serve as central point for receiving students' assignments before students report for contact and/or residential phases.
PS16: These satellites should also serve as a point where students can direct their calls about their concerns.
PS17: These satellites should also be able to accommodate subject specialists so that students do not wait up until their queries are answered when they report to the school.
PS18: We should be able to communicate with the students throughout the duration of the course.

APPENDIX I

Added individual (or personal) interview questions

1. **To what extent does the function of a training branch or section depend on the prescriptiveness of subject content?** [When designing, are you allowed to think independently or you must go by the book?]

2. **How much freedom is allowed when it comes to the selection of content to support the achievement of the outcomes?** [How fixed is the content?]

3. **How much deviation is allowed from a fixed norm?** [Can you deviate from a fixed content or how much freedom is allowed from a fixed content?]

4. **How does the DOD emphasize learning tasks when students have to master outcomes from study guides?** [How are the learning tasks emphasized in the study guides when students have to master their outcomes? How are these learning tasks designed in the study guides? Or how are students supported in order to master the learning tasks in these study guides?]

5. **How is the authenticity of these learning tasks designed in order to provide students with authentic learning experience when having to master the outcomes?** [How do you ensure that the study guides are authentic in ensuring student participation/collaboration/corporation? Or, how is student's participation, corporation, collaboration and, maybe, their attention encouraged in the study guides through their learning tasks? How are they supported?]

6. **How important is it for the DOD to encourage and allow students to communicate their answers and/or debate freely?** [What is the DOD Policy or comments in encouraging students to communicate freely? What is the DOD policy on free thinking in learning or is there such a policy in your institution that encourages free thinking?]

7. **How would the students' answers be considered when having to determine that they have mastered the outcomes?** [Are the students allowed to answer their minds as long as they achieve the intended outcomes? or are students allowed to think "outside the box" (whether in oral or written work like in exams or in discussions when, of course, they have to master the intended outcomes?]

APPENDIX J

Original School for Military Health Training added individual responses and codes allocated

1. To what extent does the function of a training branch or section depend on the prescriptiveness of subject content? [When designing, are you allowed to think independently or you must go by the book?]

DPC1: In our case we do not design the curriculum.
DPC2: It is given to us.
DPC3: We only design the modules.
DPC4: The curriculum is designed for us.
DPC5: The curriculum is prepared for us.
DPC6: We are given the guidelines to design the modules.
DPC7: The Directors specify to the training management what they need for their students.
DPC8: The doctor, the nurses, the social workers, their curricula is designed according to their specific needs from their Directors.
DPC9: The Directors are supposed to give the training management direction as to how training must be done and designed.
DPC10: The Directors design the curricula.
DPC11: A curriculum gives you the overall of what is supposed to take place in the learning.
DPC12: It generalizes the way things are supposed to be done.
DPC13: It is the overall learning expectation of Directors.
DPC14: It is the document the Directors are saying this is the way we want things to look like.
DPC15: It is prescriptive.
DPC16: It is now our duty to design modules according to different levels from the curriculum.
DPC17: There's no differentiation too much because the content of the modules is based on the curriculum.
DPC18: We take it from the curriculum as it is.
DPC19: We don't change anything.
DPC20: We don't modify anything.
DPC21: We don't have powers to modify or change anything on the curriculum or from the content.
DPC22: A certain part of the curriculum we put it on a certain part of a certain course as content as it is.
DPC23: It is like a doctrine to us.
DPC24: There's nothing you can change in a doctrine.

2. How much freedom is allowed when it comes to the selection of content to support the achievement of the outcomes? [How fixed is the content?]

FSC1: What ever we take from the curriculum to use for our own good, must look as it is.
FSC2: There's no way that you can change or modify it.
FSC3: We are not allowed to select the content of our own.
FSC4: It is fixed as you put it there.

3. How much deviation is allowed from a fixed norm? [Can you deviate from a fixed content or how much freedom is allowed from a fixed content?]

DAFC1: Within that curriculum, there are spaces that are being given that there's nothing that has been written on.
DAFC2: Written on because of uniqueness of a particular course.
DAFC3: So, the Medics also have their own uniqueness they need to put in that empty space.
DAFC4: Expectations from Directors to us as trainers.
DAFC5: The modification may happen in this scenario.
DAFC6: It is being given by the Directors that is written officially as it is in a curriculum.

4. How does the DOD emphasize learning tasks when students have to master outcomes from study guides? [How are the learning tasks emphasized in the study guides when students have to master their outcomes? How are these learning tasks designed in the study guides? Or how are students supported in order to master the learning tasks in these study guides?]

LTSG1: What we do in our environment mostly we give the students assignments that they must go and do.
LTSG2: We sit with them.
LTSG3: We discuss with them in syndicates.
LTSG4: Then, as syndicates, they must discuss these assignments as we gave them.
LTSG5: During the discussion in the class everybody's scope is broadened.
LTSG6: They broaden even our understanding as instructors.
LTSG7: We come with our standard operating procedures (SOPs).
LTSG8: We identify them according to their groupings.
LTSG9: We give them these tasks according to their specific areas.
LTSG10: We usually divide them according to those roles.
LTSG11: We group them according to their specialisations.

5. How is the authenticity of these learning tasks designed in order to provide students with authentic learning experience when having to master the outcomes? [How do you ensure that the study guides are authentic in ensuring student participation/collaboration/corporation? Or, how is student's participation, corporation, collaboration and, maybe, their attention encouraged in the study guides through their learning tasks? How are they supported?]

SGA1: We have a serious problem of 'cut-and-paste'.
SGA2: What we usually do, is to give them one and the same scenarios.
SGA3: We give them different scenarios but they are similar but there are changes if you don't know, you may not discover them.
SGA4: A student copies the work of another student that has done the course before.
SGA5: You cannot be 100% sure when they are on their distance learning phase.

6. How important is it for the DOD to encourage and allow students to communicate their answers and/or debate freely? [What is the DOD policy or comments in encouraging students to communicate freely? What is the DOD policy on free thinking in learning or is there such a policy in your institution that encourages free thinking?]

PFC1: There's absolutely nothing on that.

PFC2: There are policies that we were supposed to have as trainers that we had been given by our Directors.
PFC3: No one is there to provide us with policies of these issues.
PFC4: The fact that school is not registered or accredited with the Seta is a problem.
PFC5: There is no guideline or policy on that.
PFC6: We do not get a certain area where we can say there is a policy on.
PFC7: We've got some piece and bits of policies on these things.
PFC8: Some are designed for the issue at hand like the policy on harassment, sexual harassment.

7. How would the students' answers be considered when having to determine that they have mastered the outcomes? [Are the students allowed to answer their minds as long as they achieve the intended outcomes? or are students allowed to think 'outside the box' (whether in oral or written work like in exams or in discussions) when, of course, they have to master the intended outcomes?]

TOB1: We base ourselves on the 'mark sheet' as our marking template.
TOB2: If a student answer is not on the mark sheet, therefore that answer is wrong.
TOB3: The DoD does not use the moderators as much as other departments.
TOB4: An instructor in the DoD designs, instructs, evaluates, marks and moderate the work of his or her students at the same time as he or pleases.

APPENDIX K

Original Arm College added individual responses and codes allocated

1. To what extent does the function of a training branch or section depend on the prescriptiveness of subject content? [When designing, are you allowed to think independently or you must go by the book?]

DPC25: The branch function depends on the prescriptiveness of the subject content.
DPC26: When we design a learning programme, there are guidelines from the higher HQ.
DPC27: Also we need to adhere to the SA Army doctrine.
DPC28: We think independently when benchmarking.
DPC29: We align our subject contents with what we have in terms of capabilities of all Corps of the SA Army.
DPC30: For each and every module we compile debriefs from student side and also instructors.
DPC31: Also we think independently in sequencing the logical flow of subjects.
DPC32: We think independently in planning or scheduling of presentations.

2. How much freedom is allowed when it comes to the selection of content to support the achievement of the outcomes? [How fixed is the content?]

FSC5: To support the achievements of the outcomes, we start to consider the needs analysis for the learning programme.
FSC6: We consider designing a programme according to the client's needs and profile of the product.
FSC7: In the achievement of the outcomes, we consider the understanding of the Outcomes-Based Education (OBE).
FSC8: Training or teach towards outcomes and Assess against outcomes.
FSC9: In terms of achieving outcomes, we adhere to the principles of assessment.

3. How much deviation is allowed from a fixed norm? [Can you deviate from a fixed content or how much freedom is allowed from a fixed content?]

DAFC7: A fixed norm allows us to stick to the learning strategy that the needs analysis requires.
DAFC8: There's no deviation as such.

4. How does the DOD emphasize learning tasks when students have to master outcomes from study guides? [How are the learning tasks emphasized in the study guides when students have to master their outcomes? How are these learning tasks designed in the study guides? Or how are students supported in order to master the learning tasks in these study guides?]

LTSG12: The importance of the study guides are to direct the students the approach to follow learning in a proper way.
LTSG13: This is the measure for competency by the student on a learning programme.
LTSG14: Study guides are designed to reach the outcomes.
LTSG15: Our study guides are based on the tasks that will be given.
LTSG16: The study guides, they are not always the same.
LTSG17: They are based on the debriefs and guidance of the students.

LTSG18: After the learning programme has taken place, some of the comments given by the students are altered.
LTSG19: These study guides do have these tasks.
LTSG20: It is a sort of assessment confirmation.

5. How is the authenticity of these learning tasks designed in order to provide students with authentic learning experience when having to master the outcomes? [How do you ensure that the study guides are authentic in ensuring student participation/collaboration/corporation? Or, how is student's participation, corporation, collaboration and, maybe, their attention encouraged in the study guides through their learning tasks? How are they supported?]

SGA6: Lecture for authenticity is presented during distance and also is emphasized in the assessment instructions.
SGA7: The assessment committee do spot checks on products.
SGA8: Before even we introduce this Outcomes Based Education and also we are talking about the facilitation.
SGA9: We give them the roles of the DS on a facilitation problem.
SGA10: We give them the roles of a student on a facilitation problem.
SGA11: We confirm this by doing the SRDs (Syndicate Room Discussions).
SGA12: So where the DS is going to facilitate, everyone is going to be given the chance to say something.

6. How important is it for the DOD to encourage and allow students to communicate their answers and/or debate freely? [What is the DOD Policy or comments in encouraging students to communicate freely? What is the DOD policy on free thinking in learning or is there such a policy in your institution that encourages free thinking?]

PFC9: The learning is conducive encouraging the students to participate themselves at learning.
PFC10: Facilitation allows students to debate and express their views.
PFC11: Video lessons are making students to communicate freely by demonstrating.
PFC12: We are going to align now the outcomes in our analysis to have the relevant unit standards.
PFC13: The policy of the ETD that also includes all these learning.
PFC14: We must give them a free way of talking.
PFC15: We must also encourage them of this free way of talking of students.
PFC16: The SRDs discussions encourage those who are not prepared like the quite people.

7. How would the students' answers be considered when having to determine that they have mastered the outcomes? [Are the students allowed to answer their minds as long as they achieve the intended outcomes? or are students allowed to think "outside the box" (whether in oral or written work like in exams or in discussions when, of course, they have to master the intended outcomes?]

TOB5: A process of student preparation is conducted to achieve the intended outcomes.
TOB6: Students were also advised not to copy directly from the textbooks when completing assignment.
TOB7: We do not allow them to take words as is in book.
TOB8: The meaning and understanding is important.
TOB9: A feedback is given for better development and improvement.

APPENDIX L

Original Air Force College added individual responses and codes allocated

1. To what extent does the function of a training branch or section depend on the prescriptiveness of subject content? [When designing, are you allowed to think independently or you must go by the book?]

DPC33: An instructor may think independently as long as the outcomes of the unit standards have been addressed.
DPC26: The guidelines stipulated by higher authority must be included.
DPC34: Any additional information that the instructor considers to be of assistance to the student may be included.

2. How much freedom is allowed when it comes to the selection of content to support the achievement of the outcomes? [How fixed is the content?]

FCS10: The content is not restricted only by the outcomes.
FCS11: The instructor may include additional information which will assist the student.
FCS12: The additional information may also enhance the transfer of learning.
FCS13: The additional information may boost the learning experience.

3. How much deviation is allowed from a fixed norm? [Can you deviate from a fixed content or how much freedom is allowed from a fixed content?]

DAFC9: The instructor just needs to keep in mind what are the outcomes of the unit standard.
DAFC10: The instructor just needs to keep in mind the level at which the unit standard is written.
DAFC11: Too much deviation may mean that the information of higher level is included.
DAFC12: Too much deviation may not be necessary.
DAFC13: Too much deviation may not address the outcomes.
DAFC14: Too much deviation may be too high for the prescribed outcomes.

4. How does the DOD emphasize learning tasks when students have to master outcomes from study guides? [How are the learning tasks emphasized in the study guides when students have to master their outcomes? How are these learning tasks designed in the study guides? Or how are students supported in order to master the learning tasks in these study guides?]

LTSG21: The task settings and the study guides work hand in hand.
LTSG22: A student needs to complete the task by utilizing the study guide.
LTSG23: The study guide is designed is such a way that the student can complete the task step by step.
LTSG24: If the student experiences difficulties in completing the task the last resort would be to contact the instructor who is coordinating the process.
LTSG25: The learning tasks are included in the study guides normally after each chapter in the specific module.
LTSG26: The learning tasks also determine if the student has mastered that section of the subject before moving onto the next section or chapter.

5. How is the authenticity of these learning tasks designed in order to provide students with authentic learning experience when having to master the outcomes? [How do you ensure that the study guides are authentic in ensuring student participation/collaboration/corporation? Or, how is student's participation, corporation, collaboration and, maybe, their attention encouraged in the study guides through their learning tasks? How are they supported?]

SGA13: In certain subject the same study guides are utilized.
SGA14: The instructor has first hand feedback with regards to the use of the study guide.
SGA15: When a programme is completed the student is requested to give feedback with regards to their experience during the particular programme.
SGA16: The student is encouraged to share inputs and ideas with the instructors and programme managers.

6. How important is it for the DOD to encourage and allow students to communicate their answers and/or debate freely? [What is the DOD policy or comments in encouraging students to communicate freely? What is the DOD policy on free thinking in learning or is there such a policy in your institution that encourages free thinking?]

PFC17: The general training policy is to gain feedback from the students.
PFC2: There is no official policy that states students must communicate freely.
PFC5: There is no official policy that encourages students to communicate freely.
PFC18: Students in all training institutions think that if they speak freely that it has a detrimental effect on their results.
PFC19: Students are encouraged to 'think out of the box'.
PFC20: Training is dynamic.
PFC21: Training is not stagnant and rigid.

7. How would the students' answers be considered when having to determine that they have mastered the outcomes? [Are the students allowed to answer their minds as long as they achieve the intended outcomes? or are students allowed to think 'outside the box' (whether in oral or written work like in exams or in discussions when, of course, they have to master the intended outcomes?]

TOB10: In certain tasks there is a set memorandum whereby the task is assessed.
TOB11: In other tasks there are set objectives that the instructor would like to achieve.
TOB12: The student may broaden their discussion on a particular subject just as long as the objectives of the task have been met.
TOB13: The student may air their opinion on a particular subject just as long as the objectives of the task have been met.
TOB14: Students are not expected to study the subject content off by heart.
TOB15: The student is encouraged to "think outside the box".

APPENDIX M

Original information gathered from the student reports of Army College using Nadeosa Criteria and codes allocated.

1. Policy and Planning

PP1: The references to policies are not correct and complete.
PP2: The South African Military doctrine should be corrected to avoid contradiction.
PP3: The instructors' meetings should not be allowed to disturb learning.
PP4: A policy to involve external assessors must be drawn.

2. Learners

LN1: Some learners are slower than others.
LN2: Extra classes and lessons are available to those who need them.
LN3: What the learners need to know must be standardized.
LN5: Learners from different backgrounds should be brought to the same level at the beginning of the course.

3. Programme Development

PD1: The instructions of the exercises should be streamlined and standardized.
PD2: There should be no break within modules; the programme must continue to flow.
PD3: The guidelines must be standardized.

4. Course design

CD1: Syndicates are too large to be catered by an instructor.
CD2: Exercises should be standardized to avoid confusion.
CD3: Some learners felt that the outcomes were not achieved.
CD4: The level of content is too high for the current level of training.
CD5: The Air Force presentation had no meaning to the learners.

5. Course Materials

CM1: Some information on the maps and/or documents is incorrect and some contradictory.
CM2: Some of the study guides (manuals) are outdated.
CM3: Current doctrine or theory must be revised.
CM4: There is a serious lack of computers.
CM5: Available computers must be regularly maintained (clean the viruses).
CM6: The fact that the books were already available in the rooms was appreciated and saved time.

6. Assessment

ASM1: Peer and formative assessment occurred to a limited degree.
ASM2: The layout of the summative assessment must be verified and rectified.
ASM3: Time available not enough for the assessment.
ASM4: The approach to the assessment was very fair and the learners knew what was expected of them.

ASM5: Provide with extra instructors during the assessments.
ASM6: Some assessment technique (e.g. fill-in missing words) should be revised.
ASM7: An assessment approach should be standardizes.

7. Learner Support

LS1: Pre-briefing by the Exercise instructor excellent despite power failure sometimes.
LS2: Pre-briefing by the Exercise instructor of high standard.
LS3: Instructor expectations or outcomes were not clear to the learners.
LS4: We knew what was expected from us at all times.
LS5: All documentation must be handed out at the beginning of the Exercise.
LS6: The effort to give guidelines and help after hours was good.
LS7: The effort for revision by the instructor for learners to recap was very good.
LS8: The learners were informed on the basic arrangements and receive a block programme for the week.
LS9: Some instructors do a lot of preparation with reference to their lectures.
LS10: There was no relation between the distance education module (DEM) and the residential education module (REM.
LS11: Build up of outcomes on the DEM course is applicable to the outcomes on the REM course.
LS12: There is a good link-up between the DEM and REM.
LS13: The subject matter could be presented in more depth during the DEM phase in order for us to understand it in the REM phase.
LS14: Not enough time allowed to do the corrections.
LS15: Feedback must be provided to the learners by means of examples.
LS16: The effectiveness of information technology (IT) remains a challenge.

8. Human Resource Strategy

No relevant information for this Nadeosa criterion was gathered from the Army College student reports.

9. Management and Administration

No relevant information for this Nadeosa criterion was gathered from the Army College student reports.

11. Quality Assurance

QA1: The quality of preparations during the distance education module (DEM) was insufficient for application during residential education module (REM).
QA2: The general quality of the exercises needs to be improved.

12. Information Dissemination

No relevant information for this Nadeosa criterion was gathered from the Army College student reports.

APPENDIX N

Original information gathered from the student reports of Air Force College using Nadeosa Criteria and codes allocated.

1. Policy and Planning

No relevant information for this Nadeosa criterion was gathered from the Air Force College student reports.

2. Learners

LN4: Learner's rights were not necessarily respected throughout the Programmes.
LN6: Learners were not necessarily confident that they can transfer the learning to their workplace.

3. Programme Development

PD4: Learning sequence was not logical to assist understanding.
PD5: Training methods were not necessarily appropriate and contributing to learning.

4. Course design

No relevant information for this Nadeosa criterion was gathered from the Air Force College student reports.

5. Course Materials

CM7: More learning guides, to master some skills, should be provided.
CM8: The learning materials were not necessarily clear, nor sufficient and promoting learning.
CM9: Lack of adequate books in the library to do research.
CM10: The video machine was not made available.
CM11: There was a lack photocopying machine.
CM12: Reference material for beginning learners should be made available.

6. Assessment

ASM8: The assessment appeals' procedures are not necessarily easy to use.

7. Learner Support

LS17: The responsibilities of some learners towards their families should be taken in into consideration.

8. Human Resource Strategy

HRS1: The staff was not friendly.
HRS2: The training staff (or instructors) did not conduct themselves in a professional manner.
HRS3: Course morale was not positive and conducive to learning.
HRS4: Practitioners (or instructors) were not always well prepared to deliver the learning plan.

HRS5: Practitioners (or instructors) were not necessarily able to transfer learning effectively.
HRS6: Practitioners (or instructors) were not necessarily competent and knowing the subject matter.

9. Management and Administration

MA1: The learning venue was not suitable for course purposes.
MA2: Catering was not sufficient to cater for group needs.
MA3: Accommodation was not suitable.
MA4: Pre-course induction was not necessarily clear and useful.

11. Quality Assurance

No relevant information for this Nadeosa criterion was gathered from the Air Force College student reports.

12. Information Dissemination

ID1: The language and explanations were not necessarily clear and understandable.
ID2: Interaction was not necessarily encouraged and supported.
ID3: Learner guidance and support was not always readily available and useful.
ID4: The pace of delivery did not match learner requirements.
ID5: Feedback on progress was not always regular, sufficient and useful.

APPENDIX O

Original information gathered from the student reports of the School for Military Health Training using Nadeosa Criteria and codes allocated.

1. Policy and Planning

No relevant information for this Nadeosa criterion was gathered from the School for Military Health Training student reports.

2. Learners

LN7: The course content was very informative but pitched at a higher level.
LN8: Sometimes assumptions are made that everyone understands.

3. Programme Development

PD6: The time allocated for the course might be too short.

4. Course design

CD6: The content lacked detail because of little time.
CD7: The content lacked clarity on certain processes.
CD8: The content had no value.

5. Course Materials

CM13: Study guides (or learning materials) were not provided in other subjects.

6. Assessment

No relevant information for this Nadeosa criterion was gathered from the School for Military Health Training student reports.

7. Learner Support

No relevant information for this Nadeosa criterion was gathered from the School for Military Health Training student reports.

8. Human Resource Strategy

HRS7: Some presenters (or instructors) do not prepare properly.
HRS8: Some presenters (or instructors) were boring as they read the material to learners.
HRS9: Some presenters (or instructors) were unable to answer some questions.
HRS10: Some instructors lacked expertise of the subject matter.
HRS11: Some instructors had poor presentation skills.

9. Management and Administration

MA5: Time management on the part of the instructors was lacking.
MA6: The approach of some instructors is very prescriptive.

11. Quality Assurance

QA3: Some aspects of the learning programme were not relevant.

12. Information Dissemination

No relevant information for this Nadeosa criterion was gathered from the School for Military Health Training student reports.