

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 objectives⁹.
- 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.

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 to 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 plan¹¹ from which learning facilitation takes place.
- b. All assessment and evaluation¹² 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 execution 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 subadjacent 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 standard¹³ 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

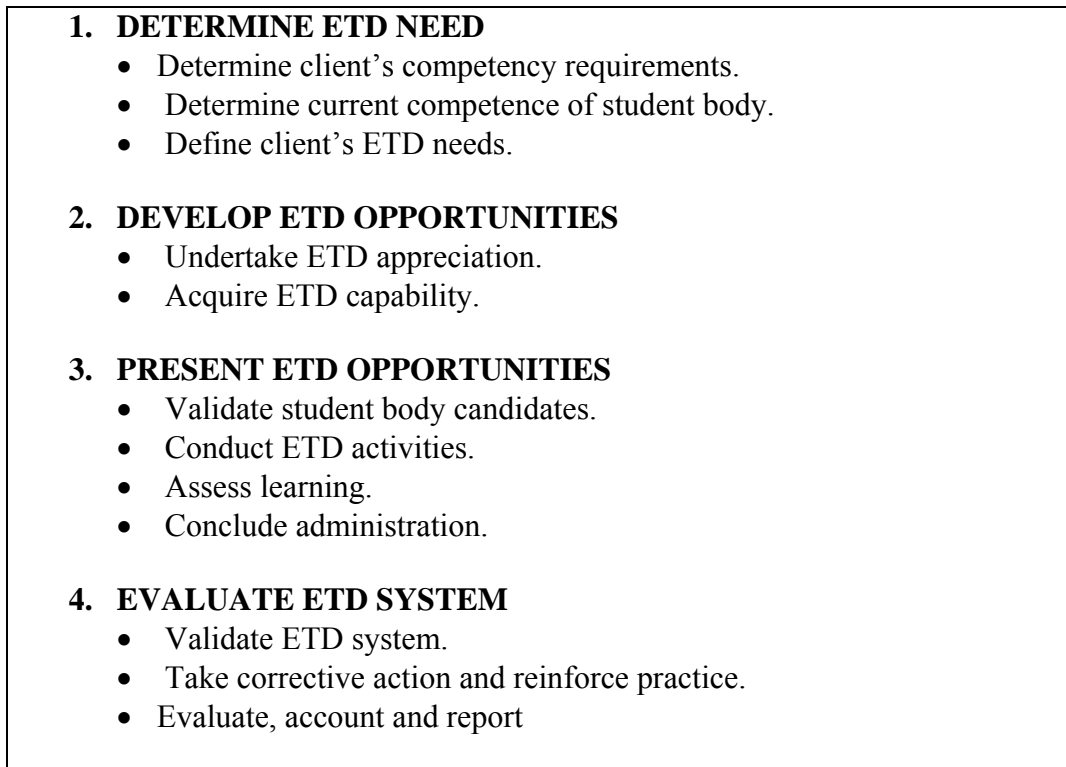


Figure 3.1: A summarised version of the DOD ETD Process (as institutionalised by the DOD ETD Project Team, 1997) [Adopted from the Follow-up Report, 1997]

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 - CSW¹⁴)

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 learner 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 discuss 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.

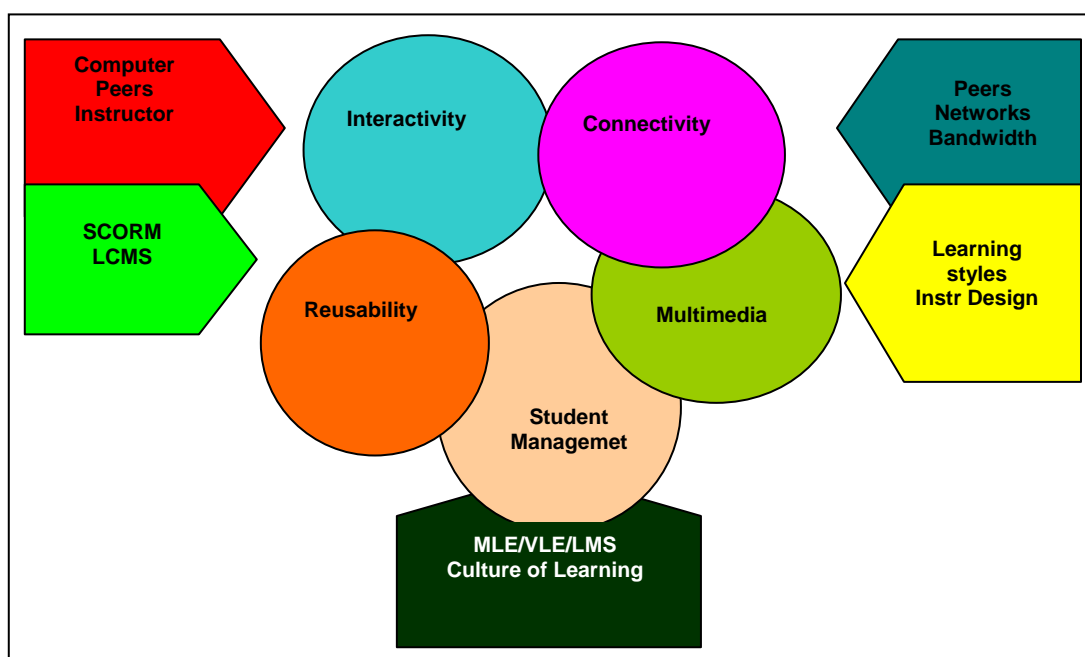


Figure 4.1: What is e-learning? (Adapted from Crome & Swift, 2004 as cited by Crome & Charles, 2005:[s.p.]).

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. Learner 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 to 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 than 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 learner 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.