An investigation into the affective experiences of students in an online learning environment

A doctoral thesis
by

Salomé M Meyer

Submitted in fulfilment of the requirements for the degree

Philosophiae Doctor (Computer Integrated Education)

in the

Faculty of Education
University of Pretoria

Promoter: Prof. Dr JC Cronjé
Department of Curriculum Studies

Co-promoter: Prof. Dr I Eloff
Department of Education Psychology

February 2005

Learning is never only cognitive – feelings or attitudes go hand in hand with intellect. One's emotions or feelings also affect the quality of one's learning.
(Van der Horst & McDonald 2001)

Summary

Affective learning forms part of all kinds of educational experiences, regardless of whether the primary focus of learning is on the psychomotor or the cognitive domain. When students are exposed to these different types of educational experiences, their feelings or emotions will be stirred (Bastable 2003: 333).

The aim of this study was to investigate the affective experiences of students who were enrolled for an online module, as part of their study programme. The study specifically aimed to investigate the meanings that students attached to their affective experiences during the module.

The rationale of this study was based on the fact that students have affective experiences that influence their decision to persevere with a course. The purpose of this study was thus to explore and interpret the participants' affective experiences in an online learning environment and to discover important categories of meaning (Marshall & Rossman 1999:33).

The basis for the study was the fifth module of a two-year tutored master's degree in computer-assisted education. This module, with its focus on e-learning, was presented entirely online for a period of six weeks. A game was played in cyberspace; and as the learning experiences of participants were based on surfing the Web, the game was called *CyberSurfiver.* In the e-learning environment, participants had to interact and communicate mainly by means of e-mail, Internet groups, and the online learning platform *WebCT*. Participants could also communicate synchronously by means of the Internet-based synchronous tool called *Yahoo! Messenger*.

A qualitative approach was used for this research. A case study was chosen as a design for this study because it reflects *particularistic*, *descriptive* and *heuristic* characteristics. On the one hand, the case study could be related to the online culture but, on the other hand, the study aimed at interpreting meaning attached to experiences within the online culture. This study can be seen as falling within the *constructivist-hermeneutic-interpretivist-qualitative paradigm*.

In this study, two focus group interviews were used as the principal method of data collection. The main purpose of the focus group interviews was to collect data about the affective experiences of participants.

The first category identified during the data analysis and coding process of this study was called *Curative Factors*. The second category was called *Process of Affective Development*. It was concluded that the participants' affective development could be compared to the levels of Krathwohl's Taxonomy. The participants' affective development were further assessed by means of a learning cycle model developed by Kort and Reilly (2002a:60-61). A third category namely *Inhibiting Factors* was identified.

The findings of this study emphasise the importance of the recognition of the holistic nature of the online students and their experiences, which imply that affective development cannot be separated from cognitive and psychomotor development.

Key concepts

- Affective experiences
- Emotion/s
- Feeling/s
- Online learning
- Online students
- Cooperative learning
- Learning environment
- Synchronous communication
- Asynchronous communication
- Altruism versus Individualism
- Internal drive
- Process of affective development
- Krathwohl's Taxonomy
- Affective learning cycle
- Inhibiting factors

Table of Content *Page*

List of Tables *Page*

Chapter 2:

Chapter 3:

Chapter 4:

Chapter 5:

Chapter 6:

List of Figures *Page*

Chapter 1:

Chapter 2:

Chapter 3:

Chapter 5:

List of Text Boxes *Page*

Chapter 2:

List of Annexes *Page*

List Of Abbreviations

AAUW	American Association of University Women
ABSA	Amalgamated Banks of South Africa
ADSL	Broadband Internet access
CIE	Computer integrated education
CMC	Computer mediated communication
E-learning	Electronic learning
F2F	Face to face
FTP	Format Transfer Protocol
HTML	Hypertext mark-up language
HTTP	Hyper Text Transfer Protocol
ION	Illinois Online Network
IT	Information technology
MA	Magister Artium (Master of Arts)
MEd (CAE)	Master's Degree in Education (Computer Assisted Education)
MS	Microsoft
RSI	Repetitive Strain Injury
SMS	Short message service/system
URL	Uniform resource locator
WWW	World Wide Web

Table of content

1 Background to the study

1.1 Introduction

This study aimed at investigating the affective experiences of students in an online learning environment. The affective domain is known as the 'feeling' domain. Learning in this domain involves increasing internalisation or commitment to feelings

expressed as emotions, interests, attitudes, values, and appreciations (Bastable 2003:330). In this chapter, the reader is orientated with regard to the study.

1.2 Background to the study

One of the well-known facts with regard to all learning programmes and the students involved is that some students finish a course while others do not. Lecturers, who communicate with students face-to-face in an interpersonal situation, may be able to explain this phenomenon more easily than those who have no personal contact with students. Lecturers in the traditional education environment may even be able to predict with some certainty which students will discontinue a course because they cannot cope. They are able to converse with students on a one-to-one basis and, from time to time, some students may make appointments to discuss problems that they experience. This is true irrespective of the level or study year of students or the nature of the course. A large number of researchers have researched the reasons for students dropping out of courses. These reasons vary from financial considerations, not being able to cope with the academic demands, and even problems experienced with administration issues involved with student registration. However, knowing why students drop out is not enough to ensure that they stay on a course.

Some of the main reasons for students staying in a course can be found in the affective domain of education. Students stay because they receive proper support from their lecturers, or enjoy subject content. However, the question is: *What are the factors that cause students involved in online learning to stay in a course, and what are the students' reasons for staying?* Should we determine the factors that made students stay in a course, we might be able to build such factors into future courses, and enhance the affective support of online students. The University of Pretoria deliberately attempted to expose students to a difficult and creative module. The module was active for six weeks. Twenty-four students started with the course and fifteen finished the course.

1.3 Authorial representation

Note: Before the problem statement regarding this research study is provided, the following information is inserted in an attempt to explain to the reader the researcher's reasons for conducting this study.

I am a lecturer in Nursing Education and Advanced Dynamics of Nursing Sciences. In 1998, whilst doing an honours degree in Advanced Nursing Education, I attended a conference on multimedia. During this conference I realised the important role that information technology (IT) played in education, regardless of the discipline. Students doing master's degrees in Computer-Assisted Education presented some of the papers. I was impressed by what I saw and heard, and enquired about the programme. Up to that point, I had limited knowledge of computers. I used the software programmes Lotus Notes and Microsoft (MS) Word for typing tests and making graphs of student performance, and I knew that MS Windows operated my office computer. That was the full extent of my computer knowledge and computing abilities.

I then applied to do the master's course in Computer-Assisted Education. I went through a selection process of first being selected on paper (when applications were assessed), and then doing a three-hour written aptitude and intelligence test. The minimum requirements were an honours degree, or a bachelor's degree in education, and familiarity with the "Microsoft environment". However, applicants' computer literacy or computer knowledge was not tested. As I did not realise the implications of the term "MS environment", I could not know what I did not know.

When the programme started, I quickly realised the extent of my ignorance. I decided to take some computer courses, including a MS Office course (MS Advanced Word, MS PowerPoint, MS Excel and MS Access), Netscape Composer (excluding hypertext mark-up language - HTML coding), and a File Transfer Protocol (FTP) course, so that I could do the assignments. I experienced a lot of anxiety and stress, as I was applying most of the information in practice for the first time when I did the assignments. I was a lecturer, an academic and a colleague to my lecturers, and I felt extremely inadequate.

Seventeen students from over the country were registered for the master's programme. We were allowed contact with the lecturers as well as each other in any way and as often as we liked. We were all members of a listserv[1] through which we could communicate. An electronic bulletin board[2] was created where we could post something of value, such as how a specific problem could be solved. Communications were mostly about the problems that students encountered with assignments or technological aspects. However, we did receive information from lecturers about future contact days, as well as feedback on assignments in a general format.

For each of the nine modules that we did, a contact day was arranged. During these contact days, we were orientated regarding the nature of the assignments and the specific requirements. Usually, a contact day was eight hours long and during that time we received much information. Even though I did take notes, I 'forgot' most of what was said, and needed support from lecturers to complete the assignments.

Students supported one another, especially on contact days. However, support on contact days was limited, as we were in a 'class situation' most of the time. Even though time was limited, and even though much of the communication between students could have been described as complaints, knowing that I was not the only one finding things tough, did help. It was good not only to share frustrations, but also to receive help when it was needed. Students living close to one another communicated by telephone, and sometimes made arrangements to work together, but students living far from each had to rely on e-mail.

Unfortunately, we found it difficult to gain support from some of the lecturers. The student group received e-mail stating how 'simple' some of the things were what we could not do, and the nature of the feedback was such that it made us feel incompetent. Some feedback could be described as patronising. I felt unsure and unsafe whilst doing some modules, and I had the impression that other students had the same experiences.

Having said all that, I had to admit that I did enjoy doing the master's course, however stressful, and I eventually gained knowledge and skills that I could apply in my profession. Still, I was convinced that my experience as a master's student would

[1] Service on the Internet that provides an electronic mailing to subscribers with similar interests (Collins Concise Dictionary 2001:865)

[2] A facility on a computer network allowing any user to leave messages that can be read by any other user, and to download information (Collins Concise Dictionary 2001:195)

have been much more positive had I received from lecturers not only support on content and technology, but also moral support.

What I did experience during the course were feelings of loneliness and inadequacy, because I realised very early on that I did not know as much as was required of students as prior learning. Being an educator and knowing what the face-to-face support by a lecturer could mean to a student, I started wondering how lecturers provided for emotional support in online learning. Technologies, including IT, are 'prostheses' that people employ to accommodate their busy lives. Unfortunately, these prostheses alienate us from ordinary face-to-face contact. Students are more than just their physical, psychological, social and spiritual parts added together; they have to be approached holistically. Lecturers, therefore, should not only concentrate on the development of knowledge and skills, but also provide for the affective development of students. This aspect of learning has to realise, even if lecturers do not have personal contact with students.

The experiences that I had as a master's student led me to consider the emotional experiences of students engaged in online learning as a topic for research. The expectation was that this research would generate information that could be used to enhance not only the affective development of students but also the affective educational support of students in future online courses.

As my professional background is caring in nature, the affective (emotional) wellness as part of the holistic well being of people is important to me. It is also important that I convey this attitude to my students as well as serve as a role model to them in this regard. The lack of caring that I experienced gave rise to my interest in affective considerations in online learning.

Although my experience could be regarded as the personal account of one person, they highlighted the main problem, namely the lack of personal contact and encouragement in an online learning environment. This problem seemed to be universal and formed the basis of this study.

1.4 Problem statement

It is the faceless nature of the e-learning environment that is a matter of concern. Not only is the lack of face-to-face contact between lecturer and student a cause for

concern, but also the lack of face-to-face contact between students who are registered for an online programme. Understandably, personal contact is minimal in online learning. The question arises: *How do students make up, or compensate, for the lack of personal contact?*

Little attention is given to the affective domain in online learning. Lecturers focus their attention more often on cognitive processing and psychomotor functioning with little time set aside for exploring and clarifying learner feelings, emotions, and attitudes (Adkins 2004; Bastable 2003:332; Lee, Zeleke & Meletiou-Mavrotheris 2004; Murray 2002). A considerable amount of research has addressed the technology behind the communication; yet, research on students' affective experiences has lagged behind (Smith 2002).

The affective domain includes three levels that govern attitudes and feelings. According to Bastable (2003:333), they are the following:

- The *intrapersonal* level that includes personal perceptions of one's own self such as self-concept, self-awareness, and self-acceptance;
- The *interpersonal* level that includes the perspective of self in relation to other individuals; and
- The *extrapersonal* level that involves the perception of others as established groups.

One should consider cognition and emotion as two closely related, ongoing, changing streams of experience that interact with one another and influence overt behaviour in subtle complex ways (Cousin & Davidson [Sa]). Affective learning is part of every type of educational experience, even though the primary focus of learning may be on either the psychomotor or cognitive domain. It is inevitable that students' feelings or emotions will be aroused to some extent when they are exposed to different types of educational experiences (Bastable 2003:333). The feelings, the emotions and the affective experiences of students involved in online learning are investigated in this study.

1.5 Research question

In view of the above problem statement referring to feelings, emotions and affective experiences, the following research question forms the basis of this study:

What are the affective experiences of students in an online learning environment?

1.6 Purpose

The purpose of this study was to explore and interpret the affective experiences of students in an online learning environment and to discover important categories of meaning (Marshall and Rossman 1999:33) about their affective experiences.

1.7 Objectives

Given the purpose of this study, the objectives were to establish:

- How online students cope in an online learning environment;
- Why online students ask for help;
- Why online students offer help;
- The principal causes of motivation and frustration;
- The nature of the cooperation between students (the nature of peer support);
- How (and to what extent) affective experiences of students contribute towards the successful completion of an online course;
- What could make a student drop off a course regardless of volition.

1.8 The scope and context of the study

According to Huitt (1999a), the concept '*feeling'* can be defined as:

> *'An affective state of consciousness, such as that resulting from emotions, sentiments, or desires; an emotional state or disposition; (a) subjective human response.'*

This study focuses on the affective experiences of students who took a course by means of online learning. It specifically aimed at addressing the meanings that students attach to affective experiences during online learning.

The focus of this study is affective experiences such as *feelings* and not necessarily *emotions* or *attitudes* of students. It can be argued that these three concepts ('*feelings*', '*emotions*' and '*attitudes*') are interrelated but, for the purpose of this study, '*feelings*' are interpreted as *affective experiences.* The assumption is that students' affective experiences (feelings) are evoked by their emotions and influenced by their personal attitudes toward the different aspects of this unique learning situation.

1.9 Exclusions from this study

The study does not address the following:

- Aspects regarding the design and development of online course material;
- Aspects regarding the design and development of online games;
- The role of the course designer, course developer or lecturer;
- The selection and use of e-learning platforms;
- Computer infrastructure – hardware and software specifications;
- Academic backgrounds of the students or lecturer;
- Reasons why students drop out of online courses;
- Gender or race issues in online learning;
- Assessment in an online learning environment; and
- Issues of emotional intelligence.

1.10 Limitations of the study

The study is about the personal experiences of study participants (online students) and the interpretation of their affective experiences. Transferability of the study findings might be problematic, because of the uniqueness of affective experiences. The applicability of the findings does not depend on the researcher who undertakes the study, but rather on the researcher who wants to use the study findings (De Vos, Strydom, Fouché & Delport 2002:352). As this study has a single system design, it will not be possible to draw generalisations from it. Single-group designs are very limited with regard to conclusions that may be drawn from them (De Vos *et al.* 2002:162). Gathering responses with regard to feelings is of short duration and this affects the quality and nature of data.

1.11 Significance and potential contribution of the study

As mentioned in section 1.4, researchers in the Information Technology and e-learning fields tend to ignore the affective domain as an area of research (Murray 2002). At the same time it must be noted that emotions and feelings of students undoubtedly affect the quality of their learning (Van der Horst & McDonald 2001:39). For this reason, it is important to consider the influence that the affective components of online learning have on overall learning and the professional and personal development of a student. Should it be possible to determine the affective experiences of students in an online environment, mechanisms could be built into future courses to improve the affective support of students in such an environment.

1.12 Definitions of key concepts

In the context of this study, the following definitions of key concepts will apply:

- **Affective domain:** This domain is characterised by learners' emotions, feelings, values, appreciation, enthusiasm, motivation, attitudes and relationships. It includes situations in which students acquire, process and present information.
- **Asynchronous activities/communication:** Learners do not communicate with each other or the lecturer at the same time. They are therefore free to communicate when it is possible or convenient to do so (Gravett & Geyser 2004:171).

- **Cognitive domain:** It involves the recall or recognition of specific facts, procedures and concepts that serve the development of intellectual abilities and skills as learners acquire, process and present information.
- **Contact situation:** Learners and the teacher are physically in the same classroom at the same time. It is in this situation that the student and lecturer are able to engage in face-to-face interaction.
- **Courses:** These are formal courses that serve the continuation of academic and professional development.
- **Electronic learning (e-learning):** It is the acquisition of knowledge and skill by using a computer and a network[3] to communicate. It is the "… way people communicate and learn electronically" (Roffe 2002:40).
- **Face-to-face interaction:** It is a situation where two people meet and talk directly. See 'contact situation' above.
- **Lecturer:** A lecturer is a person who has been assigned the responsibility of guiding students toward reaching outcomes/objectives (Phillips 1994:217). S/he is comfortable with an adult approach to learning (MacGill 1986:149-154).
- **Information technology (IT):** IT implies the use of computers and telecommunication systems for storing, retrieving and sending information (South African Concise Oxford Dictionary 2002:592).
- **Internet:** According to Mouton (2001:205), the Internet is a '…global association of computers that carries data and makes the exchange of information possible'.
- **Learning environment:** This refers to a learning situation where the lecturer is purposefully involved with the student to ensure the attainment of learning outcomes by the student.
- **Online learning:** Online learning occurs when education and training is delivered and supported by networks such as the Internet. Learning may be synchronous or asynchronous, and learners are able to learn anyplace at any time.
- **Outcomes:** Outcomes are the objectives of a course that should be attained by students.
- **Psychomotor domain:** This domain includes the learner's physical movement, coordination, her/his use of motor-skill areas, as well as the manipulative or motor skills of the student in acquiring, processing and presenting information. It also includes the environment in which students work.
- **Student:** A student is registered for and engaged in continuing education by means of online learning/e-learning.

[3] A network is a number of computers that are interconnected in some way or another. In a wide area network (such as the Internet) the terminals are linked by radio or satellite.

- **Synchronous activities/communication:** Learners communicate at the same time. This is often referred to as 'real time' communication (Gravett & Geyser 2004:171).
- **Technology:** Technology is the systematic application of concepts of behavioural and physical sciences and of other knowledge and skills to the solution of problems.
- **Web:** According to Mouton (2001:205), the Web is a '...subset of the Internet; a collection of interlinked documents that work together using a specific Internet Protocol called HTTP (Hyper Text Transfer Protocol)'.

1.13 Research method

The affective experience of the online environment is of interest in this study (Cohen, Kahn & Steeves 2000:46). It is a single kind of human experience that was studied rather than a social process or a culture (Morse 1994:118). Considering the research objectives, it was appropriate to conduct the study by employing a *qualitative approach* within a *phenomenological paradigm*. The feelings and affective experiences of the students were *interpreted* (Holloway & Wheeler 2002:3).

Savenye and Robinson (1996:1172) describe qualitative research as research devoted to *developing* an *understanding* of human systems. For the purposes of this research, '*understanding'* implies interpreting the affective experiences of the participants (online students), while '*developing an understanding'* implies gaining knowledge from students about their experiences.

Hermeneutics were used as the words of students explaining their experiences were interpreted. The study focused on understanding or interpreting the meaning of the affective descriptions verbalised by students during focus group interviews. It was important to think about the meaning of a word because language is a manner of expressing experience (Cohen *et al.* 2000:6).

1.14 Research design

The research was conducted in the form of a case study. Merriam (1998:27) is quoting Miles and Huberman when she defines a case as '...a phenomenon of some sort occurring in bounded text'. The bounded nature of a case is reiterated by

Creswell (1998:172) when he states plainly that a case study has boundaries. The boundaries of this study are the number of students who was involved in the module, the lecturer, and a time-span of six weeks during which the module was active.

A case study was chosen as a design for this study because it reflects *particularistic*, *descriptive* and *heuristic* characteristics. This study is particularistic because it focuses on a particular event. It is descriptive, as rich and thick descriptions were made of the data gathered. It has heuristic qualities, as the meanings that students attach to their experiences were discovered (Cresswell 1998:172; Merriam 1998:27). Authorial representation conveys the position of the researcher (Creswell 1998:172). Refer to section 1.3 and 1.17.

1.14.1 Population and sampling

The basis for this study is a two-year tutored master's degree in Computer-Assisted Education. The fifth module in the master's programme, with its focus on e-learning, was used for this research study. The module was hosted entirely online for a period of six weeks, and was presented in the style of a well-known game, namely that of the internationally acclaimed reality game show *Survivor*. In this module, the game is called *CyberSurfiver*, as it is played in cyberspace[4] and the learning experiences of participants are based on surfing[5] the Web. [Students who took the module that was presented from 18 July 2002 to 29 August 2002 were requested to partake in this study.]

Participants in *CyberSurfiver* were chosen as the population of this study because of the environment they had to proceed in. The population consisted of adult learners who combined part-time study with a full-time job.

A specific group of students was selected to verbalise their shared experiences. It was purposively decided to use this group of students, because they were forced to make meaning of their learning experiences (Cohen *et al.* 2000:50). Their participation was considered from the following perspectives:

[4] Data stored in a computer or network as a three-dimensional model (an imaginary place or virtual reality)
[5] To move rapidly and easily through stored data

- Experiences of place;
- Experiences of events and time; and
- Ways of verbalising experiences.

The assumption is that these three perspectives cannot be seen in isolation (Cohen *et al.* 2000:46). Students experienced learning events at the same time, and were expected to communicate in a specified and prescribed manner. Data was collected by transcribing the verbal accounts of the selected group of participants.

1.14.2 Data collection

Different data collection methods were used to obtain relevant data about the research topic. As the module under discussion was presented entirely online, and as all communication between students, and between students and their lecturer, had to occur online, a number of possible electronic data sources were available for analysis. These sources were available as the researcher had unlimited access to all online communication between participants, and between participants and their facilitator. This access was arranged, as it was expected that the e-communication would intimate the affective experiences of participants. These sources are the following:

- Electronic group messages;
- E-mail messages;
- *Yahoo! Messenger*[6]; and
- Individual home Web pages.

However, the main source of data was the participants' verbal accounts of their experiences as related during focus group interviews. The focus group technique was used as a data collection method because it can provide rich and thick data at a reasonable cost. The purpose of focus group interviews was to collect data about personal experiences of participants. A skilled person was required to conduct the interviews, as it can be expected that emotional responses may be provoked during these interviews (Morse 1994:226, 227, 229). Thus, an independent interviewer conducted the interviews and a second independent person took field notes. Field notes were taken by means of spontaneous observation. The purpose of using field

[6] An Internet-based synchronous communication tool

notes was to assist in the interpretation of the experiences of participants and therefore to enrich the data analysis (Burns & Grove 1997:352, 359).

An interview protocol was designed, and the interviews were audio recorded by using a Dictaphone and then transcribed. Pilot testing was not considered for this study, as the study is interpretive in nature (Holloway & Wheeler 2002:80). Learning to do interviews or analyses is not piloting; it is, at best, training, and it may or may not be incorporated into the data set. Once a researcher understands what is going on and has verified analysis, the study is usually considered finished (Morse & Stephany 2001:1).

1.14.3 Data analysis

Data obtained electronically was analysed, but not coded. This afforded me a glimpse of the affective experiences of participants. It was also useful, as it served as orientation with regard to the participants' affective experiences and the nature and amount of information that was obtained during focus group interviews.

Rich and thick descriptions were obtained from the verbalised experiences of participants (Holloway & Wheeler 2002:140). These descriptions were analysed by means of a qualitative content analysis. The transcribed narrative descriptions obtained from the focus group interviews formed the units of analysis. At first smaller parts of the data were examined, which ensured that the whole situation was eventually understood (Cohen *et al.* 2000:72, 73). Themes were searched for and clustered, and codes were applied. Coding is done to transform raw data into a standardised form (Polit & Hungler 1993:329). In this study, the main purpose of this exercise was to attempt an interpretation of the meaning of participants' experiences in online learning (Creswell 1998:51). The hermeneutic circle was used to guide the process of interpretation. The way the data was analysed and the process of interpretation contributed to the authenticity and trustworthiness of the research.

1.14.4 Authenticity and trustworthiness

The *authenticity* and *trustworthiness* of the research were enhanced by meeting evaluation criteria such as *confirmability, meaning in context, recurring patterning, saturation, credibility, and transferability* (Morse 1994:105-7). The realisation of meeting these criteria are explained as follows:

- **Confirmability** is evaluated by seeking repeated and documented evidence (Morse 1994:105).
- **Meaning in context** is ensured by analysing the meaning provided by the participants in the context of their experiences.
- **Recurring patterning** is searched for in the verbalised experiences of the participants.
- **Saturation** is attempted by making rich and thick descriptions in the data analysis (Morse 1994:106).

Rather than seeking internal and external validity, the focus was on the **authenticity** of data. To support the practice of bracketing, a second independent data analyst was employed to verify (authenticate) coded data obtained from focus group interviews. (Holloway & Wheeler 2002:173; Morse 1994:119.) This allowed for the process of inquiry to be open to outside scrutiny (Cohen *et al.* 2000:86).
Rather than focussing on reliability, the focus was on **trustworthiness** (Creswell 1998:197). The concepts *credibility, dependability* and *transferability* are used to describe various aspects of trustworthiness.

- **Credibility** of this study was ensured by seeing to it that the process of data analysis addresses the intended focus of the study (Graneheim & Lundman 2004:109; Morse 1994:105). Credibility was also ensured by employing an independent data analyst, and by allowing two other researchers involved with this group of students (see subsection 1.17) to read and comment on the field notes and the interview transcripts (Janesick 2000:393).

- **Dependability** received attention, as I am aware that the interpretation of the data may change over time. Data was presented in such a manner as to allow for alternative interpretations by readers (Graneheim & Lundman 2004:110).

- **Transferability** of the findings of this study may be problematic, as the applicability of the findings does not depend on the researcher who is conducting the study, but rather on the researcher who plans to apply the findings to another context (De Vos *et al.* 2002:352). Graneheim and Lundman (2004:109) state:

> *'The authors can give suggestions about transferability, but it is the reader's decision whether or not the findings are transferable in another context.'*

The intended outcome of this study, because of its explorative nature, is a deeper understanding of the experiences of participants and not the generalisability of results (Maykunt & Morehouse 1994:44). A deeper understanding is reached when the findings of the study assume the form of a definite answer to the research question. Assuming a definite form is also implied by the term 'crystallisation'.

1.14.5 Crystallisation

For the purpose of crystallisation, information obtained from students was narrated. Literature specific to the findings was then used to confirm the study findings, and to identify unique findings (Burns & Grove 1997:118). Janesick (2000:379) is of the opinion that crystallisation offers a better lens through which to view qualitative research designs. The process of crystallisation ensured viewing the data from different perspectives. According to Denzin and Lincoln (2000:5), the central image of qualitative inquiry is the central image of crystallisation and not the concept of triangulation.

1.15 Literature control

Literature control was done to examine and verify trends and similarities in the data that was obtained. It is used to confirm the findings of a study, and to indicate deficiencies and gaps. Although evidence is sought, literature control can uncover presuppositions (Morse 1994:120). Literature was integrated into the study as the study developed. This was done by means of an ongoing literature search that was linked to the findings in the data (Holloway & Wheeler 2002:35). Thus, literature was sought to confirm the findings of the study, and to identify information that did not surface in the study (Burns & Grove 1997:118).

1.16 Ethical considerations

Researchers have an ethical responsibility to recognise and protect the rights of human research participants. During the course of this study, attention was given to the following human rights:

- **Self-determination:** Participation was not forced on participants, and participants were not discredited if they choose not to participate.
- **Privacy:** No individual was identified by her/his real name.
- **Anonymity:** Personal information about the participants was not revealed.
- **Confidentiality:** When necessary, pseudonyms were used, e.g. for the purpose of the discussion of data.
- **Fair treatment and protection from discomfort or harm:** Participants were not discriminated against on the basis of race, gender, or religion.
- **Informed consent:** Students who intended to participate in this online learning module were informed that the module would provide the basis for three doctoral studies. At the first student contact session, the online lecturer and the supervisor of the module communicated this message verbally. Written consent was also obtained from participants.

Permission to conduct this study was obtained from the supervisor who was responsible for the running of the module. An extensive ethical statement as required by the Faculty of Education within the University of Pretoria had been compiled, and was accepted. The proposal for this study was successfully defended before a panel of academics at the Faculty of Education in the University of Pretoria on 28 February 2003.

1.17 Role/s of researcher/s

Three researchers were directly/indirectly involved with the group of students who intended to complete this specific master's programme module with its focus on e-learning. The three researchers were members of a collaborative research project. Our approaches to the project were based on three different foci, namely:

- The role of the facilitator in online learning (Adendorff 2004);
- Affective experiences of students involved in online learning (Salomé Meyer); and
- The interaction in an adult online learning community (Van Ryneveld 2004).

The project is schematically depicted in Figure 1.1.

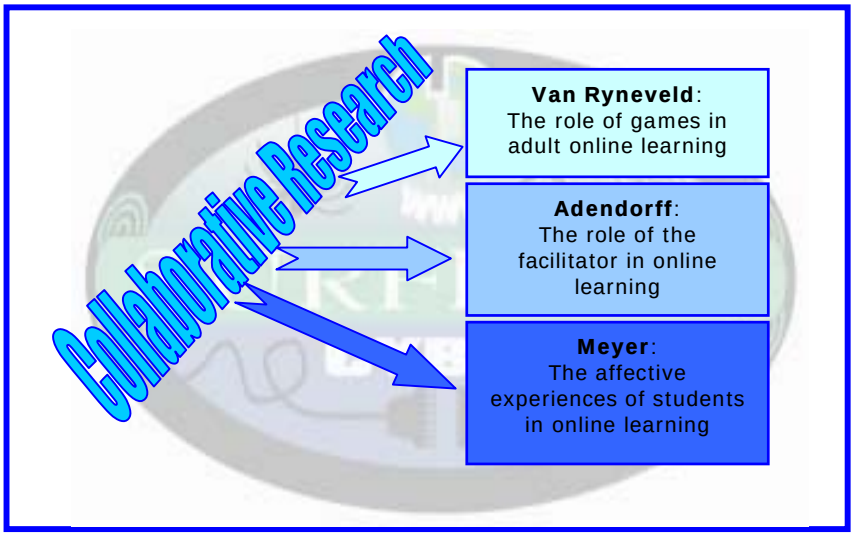


Figure 1.1: Collaborative Research

1.18 Outline of this study

- **Chapter 1: Orientation to the study:** This chapter gives the background to the study and provides an overview of the research project. It includes authorial representation and mentions the lack of research on the affective components of e-learning, which prompted this research.
- **Chapter 2: Literature in context:** This chapter provides an overview of available literature, and includes the conceptual framework.
- **Chapter 3: Research methodology:** The methodology used is described and motivated. The chapter also includes a description of the data collection instruments. The research process is explained. The realisation of the data collection and the data analysis is outlined, and illustrated by means of figures and tables.
- **Chapter 4: Curative factors:** The first category identified in the coding process is discussed by means of numerous quotations. The data are interpreted and the literature control is done.
- **Chapter 5: Process of affective development:** This chapter contains the discussion on the process of affective development, which is the second category identified in the coding process. It also contains the literature control on the category.
- **Chapter 6: Inhibiting factors:** The third category (inhibiting factors) is discussed and its accompanying literature control is done in this chapter.

- **Chapter 7: Conclusions and recommendations:** An overview of the research is provided and conclusions are drawn. Limitations of the study as well as areas for possible further research are addressed.

1.19 Summary

In this chapter, the following research question was introduced: *What are the affective experiences of students in an online learning environment?* In order to answer this question, a group of online students were interviewed. This study was undertaken in an attempt to understand the affective experiences of students involved in online learning. The expectation was that the study results would enhance knowledge and understanding of the affective domain in online learning. It was hoped that the findings would encourage lecturers to rethink traditional teaching practices, and to consider enhancing the process of learning with the assistance of technology, specifically, e-learning. In this chapter, the background to the study was discussed and the research design was introduced. Literature in context will be discussed in Chapter 2.

Table of content

2 Literature in Context of this Study

2.1 Introduction

Chapter 1 presented the background to the study and the proposed research design. The study is about the affective experiences of students during a specific online learning event and the way students attach meaning to their experiences. Refer to Sections 1.8 and 1.9 about the scope and context of the study, as well as exclusions from the study. In this chapter, the reader is informed about literature that relates to the context of the study. Thus, Chapter 2 can be described as a discussion on literature in context of this study.

I did not want to be guided by findings of previous studies, and therefore only investigated literature in context of the study in order to create a theoretical framework for the study. Because of the qualitative, explorative and contextual nature of the study, literature will also be incorporated into Chapters 4, 5 and 6 to serve as literature control on study findings. It is expected that the literature control

will enhance the findings of the study. Due to the approach followed with regard to the literature review in Chapter 2 and the literature review with regard to the findings there are some duplications in Chapter 2 and the literature control done in Chapters 4, 5 and 6.

Literature on aspects such as learning (including active learning, cooperative learning, and constructivist learning), the learning environment, the affective domain and online learning is presented in the following sections. The discussion on literature in context is concluded by comments about the limited research done on affective experiences in online environments.

2.2 Active learning

According to Dodge ([Sa]), 'active learning' is not a modern concept, as it can be dated back to Socrates. The American, John Dewey, supported active learning (1859-1952). Dewy was known as a pragmatist philosopher and a progressive educator (Bonwell & Eison 1991; Dodge [Sa]). According to Smith (2004), Dewey saw education as a necessity of modern life. He emphasised the need for reality and meaning in learning, and warned of the danger of creating an undesirable split between learning and experiences gained in more direct associations. Dewey's conception of education was that the classroom should mirror the larger society, and serve as a laboratory for real-life education (Myers & Myers 1990). Dewey (1915:125) states that social organisation commits human beings to learning by means of trial and error. He further states:

> *'Our working principle is to try: to find out by trying, and to measure the worth of the ideas and theories tried by the success with which they meet the text of application in practice'.*

In active learning the emphasis is on activity. Active learning involves putting students in situations where they have to do more than just listen. It puts them in situations where they are required to read, speak, listen, think deeply, write, and even engage in problem solving (Bonwell & Eison 1991; Dodge [Sa]). Thus, active learning makes students responsible for their own learning, and ideally lends itself to a more diverse range of learning styles. Bonwell and Eison (1991) further state:

> *'… to be actively involved, students must engage in such higher-order thinking tasks as analysis, synthesis, and evaluation. Within this context, it is proposed that strategies promoting active learning be defined as instructional activities involving students in doing things and thinking about what they are doing.'*

It is my opinion, as is that of many lecturers that students should be able to function independently. Independent functioning relates to the ability of students to develop into critical, analytical thinkers, and to solve problems. Teaching strategies that allow for the development of students as independent, critical, analytical thinkers will also equip students with skills that they will need to enter a profession and to progress in a career.

I agree with Doshier (2000) who states that the student must experience a learning environment that is conducive to active learning – an environment in which s/he can practise and develop skills and knowledge. Students will obtain knowledge through active learning if the learning environment created by the lecturer encourages them to become actively involved and to accept responsibility for their own learning. Thus, active learning is typical of a student-centred approach to learning (Van der Horst & McDonald 2001:227). However, being responsible for own learning does not imply that the learning environment should have no structure. Increased structure may be required to ensure that learning strategies are successfully employed (Seeler, Turnwald & Bull [Sa]).

Ference and Vockell (1994:25) define the concept 'active student' as a student who is usually willing to participate in the learning process. This willingness is a characteristic of a mature student. Given the opportunity and the proper incentives, students often prefer to be actively involved in their own learning, rather than being passive receivers of information. At some point action or active learning leads to interaction.

Within the online learning environment, it is imperative that students will interact with their peers while they are involved in their own learning and/or the subject content. Acting in isolation may inhibit the student's ability to discover meaning or to apply the acquired knowledge and skills.

2.3 Interaction

The importance of interaction in the learning process, by which students construct lifeless information into knowledge with personal application and value, has been documented by John Dewey in 1916 (Woods & Baker 2004). Interaction, coupled with social engagement, is seen as important for positive learning experiences (Gunawardena 1995; Hara & Kling 1999; Moore 1989:1-6; Wegerif 1998). Interaction is also a key component of learning in constructivist learning theories, as the value of another person's perspective is usually gained through interaction (Jonassen 1991:28-33). Interaction would then reflect an active social engagement with the expectation of some level of ongoing communication (Woods & Baker 2004).

I believe that interaction with peers may prove to be a motivational factor for students. Interaction could lead to mutual support and stimulation, and enhance students' feelings of personal responsibility. By means of interaction students become actively involved in their own learning. While interacting with their peers, they use strategies such as questioning, explaining and summarising by formulating ideas in their own words.

A large body of knowledge is available that is accessible by numerous means of interaction. Students are easily overwhelmed by the overload of information and may experience inabilities to apply their acquired knowledge and skills in an applicable manner, if they do not receive guidance on how to interact in a structured manner. Interaction with lecturers and peers as part of the learning process may assist students to construct knowledge in a meaningful manner.

Wagner (1994:8) distinguishes between interaction and interactivity, and notes that neither concept has been sufficiently defined. While she regards interactivity as a 'machine attribute' or a characteristic of technology, she explains interaction as a reciprocal event:

> *'Simply stated, interactions are reciprocal events that require at least two objects and two actions. Interactions occur when these objects and events mutually influence one another'* (Wagner 1994:7).

I agree with Wagner and believe that the reciprocal nature of interaction is necessary for meaningful learning to take place. Interactions that are reciprocal may enhance the ability of students to think analytically and critically. Dix, Ramduny and Wilkinson

([Sa]) implicate the importance of feedback when they state that interaction '*... is often seen as a form of cycle where a user has an intention, performs an action, observes and evaluates the effect of the action and then modifies future plans and actions based on the results*'. In this model, students are expected to wait until the effects of an action are observed, and should be able to remember why an action was performed when the effects are interpreted. Therefore, according to Dix *et al.* ([Sa]), this model only applies when students receive immediate feedback on their actions.

The value of learning lies in increased social interaction. The social aspect of collaborative learning and advocate student participation in cooperative learning must be emphasised.

2.4 Cooperative and collaborative learning

Cooperative learning can be defined as the utilisation of groups in order to enable students to maximise their own learning, as well as that of others (Gravett & Geyser 2004:43). Cooperative learning is a form of collaborative learning and is characterised by the interdependence of members of a group. Cooperative interaction includes face-to-face interaction, individual accountability for the results of the group's efforts, and conscious reflection on the functioning of the group. Freiberg and Driscoll (1996) explain cooperative learning as:

> *'... working together in groups small enough that everyone participates on a collective task that has been clearly defined, and without direct and immediate supervision of the educator'.*

When students work cooperatively and collaboratively in an authentic learning situation they bring their own prior learning and viewpoints to the situation. They look at a problem from different perspectives, and negotiate and generate meanings and solutions through shared understanding (Selinger 2001). Collaboration requires of lecturers to think of students not simply as individuals, but as a community that works toward similar and shared goals, the achievement of which depends upon collaboration.

Vygotsky (1978) describes the difference between an individual's current level of development and her/his potential level as the *'zone of proximal development'*. He is of the opinion that the construction or assimilation of knowledge that can be

developed through collaborative learning events exceeds the assimilation of knowledge that can be attained by individual learning. The implication of this statement is that the value of learning or construction of knowledge lies in increased social interaction. The social aspect of collaborative learning is emphasised by Van der Horst and McDonald (2001:138) who believe that student participation in cooperative learning will lead to more meaningful learning.

I agree with Johnson, Johnson and Smith (1991) who state that cooperative learning has benefits not offered by traditional pedagogical approaches. These benefits are paraphrased as follows:

- Increased cognitive achievement;
- Promotion of higher-level thinking skills;
- Improved self-esteem and satisfaction from helping others; and
- Development of social skills, including negotiation and conflict resolution, for effective group work.

Martin (2000) lists the advantages of cooperative learning. According to the author (paraphrased), it:

- Helps clarify ideas and concepts through discussion;
- Helps develop critical thinking;
- Provides learners with opportunities to share information and ideas;
- Helps develop communication skills;
- Provides a social context within which learners can take control of their own learning;
- Provides validation of individuals' ideas and ways of thinking through conversation (verbalising); multiple perspectives (cognitive restructuring); and argumentation (conceptual conflict resolution).

It is my experience that, for cooperative learning to realise to its fullest extent, a learning environment should be established that is conducive to optimal cooperative learning. However, the establishment of such a climate is not a simple, final or complete accomplishment. Gravett (2001:41) holds the opinion that it should be continuously created and re-created. This should be done by intentionally attending to its physical, affective-social, psychological and intellectual components. These components are described as follows (paraphrased):

- **Physical climate:** The physical climate is concerned with ergonomics and the interaction of students within the physical environment.
- **Affective-social climate:** How students feel about subject matter and how lecturers and students feel about own and mutual experiences pertain to the affective-social climate.
- **Psychological climate/safety:** Meaningful cooperative learning requires a climate in which students feel psychologically safe.
- **Intellectual safety:** If positive emotions are experienced, interest and involvement in subject matter and cooperative activities will be sustained.

Johnson and Johnson (1991), Van der Horst and McDonald (2001:138, 139), and Gravett and Geyser (2004:47, 48) identify five structural elements that lie at the root of cooperative learning and promote effective group interaction, *viz. positive interdependence, individual accountability, face-to-face promotive interaction, interpersonal and small-group skills,* and *group processing*. A mutual goal and face-to-face interdependence imply that learning tasks for groups should be structured in such a manner that each student will need the input of other students to complete a task. However, each student should produce a piece of individual work that is unique and differs from that of her/his peer (Cronjé 1997).

Van der Horst and McDonald (2001:138, 139), as well as Gravett and Geyser (2004:47, 48) add to these prerequisites for effective cooperative learning. They describe these five structural elements as follows (paraphrased):

- **Positive interdependence** is present when all the members of a group believe that they need each other in order to attain individual and group learning outcomes.
- **Individual accountability** is based on the student's understanding that her/his individual contribution is essential to both individual and group success.
- **Face-to-face promotive interaction** means that students encourage one another and work together (face to face) to achieve group goals. It maximises student participation and communication.
- **Interpersonal and small-group skills** involve many capabilities that vary from the very basic to highly complex skills. When learning activities are structured, it should not be taken for granted that students have mastered these skills.
- During and after their occurrence, group activities should be processed to become effective. Students participating in cooperative learning should be able to reflect on **group processing.**

Cooperative learning allows students to share knowledge and teach one another. The rationale for engaging peers in teaching each other is based on the notion that because learning is social in nature, students ought to be provided with opportunities to interact. While interacting, they elaborate and reflect on not just their own ideas, but those of their peers as well (Strommen & Lincoln 1992). Colleagues become resources rather than competitors (Laidlaw 1998). The purpose of peer interaction is to make the implicit nature of the social learning explicit by encouraging active learning within social settings. Social constructivist learning theories, therefore, form the basis of cooperative learning (Gravett & Geyser 2004:47). New meaning is eventually co-constructed as part of the knowledge-building process (Morphew 2000:1; Rea, White, McHaney & Sánchez 2000:137).

Although I noted some benefits when employing cooperative and collaborative problem-solving learning strategies in my classes, I also noted several disadvantages. Some students disliked working in cooperative groups. It could be that they did not wish to expose their 'ignorance' to other students. Some students preferred working by themselves, and resisted being forced into doing group assignments. This concern may be related to the obtainment of fair marks. Students may feel that it is better to give separate marks to individual students, rather than give the same mark to all group members, especially if all students did not contribute equally to the assignment. Some students preferred the teacher-centred approach to learning, and wanted the lecturer to give clear explanations and provide them with the correct answers, rather than struggle with a problem themselves. It also seemed that some students were trained to be competitive and work individually, and therefore lacked cooperative and collaborative skills.

Martin (2000) is of the opinion that cooperative learning creates the opportunity for participation in the production of a learning outcome that cannot be achieved alone. For this reason, cooperative learning presents the following disadvantages (paraphrased):

- Students may become dependent on the success of the group process;
- The lecturer may find it difficult to assess individual learning outcomes;
- The teaching approach may not suit the learning styles of all students; and
- Lecturers may be unsure of the role they have to fulfil.

I am of the opinion that neither cooperative, nor collaborative learning is a 'quick fix' to educational problems, and does not replace traditional, time-honoured teaching

strategies. Collaborative learning and collaborative teaching are some of many tools, and it can be used to achieve specific teaching goals. Both methods are especially relevant to the needs of students in a classroom where students have diverse academic and linguistic skills. According to Johnson *et al*. (1991) and Millis and Cottell (1998), research on cooperative learning strongly indicates that groups be heterogeneous, to ensure provision of a diversity of ideas and viewpoints.

The decision to use group work as a teaching strategy must be determined by the goals of the lecturer. Lecturers should consider using group work in combination with a variety of other teaching strategies. However, the decision to employ cooperative teaching strategies is not an easy one, as it brings with it some stumbling blocks, some of which can be anticipated and others not.

According to Garfield (1993), some lecturers may feel '*uncomfortable losing their role of being on centre stage, performing in front of appreciative students*'. I do not agree with this point of view. My experience correlates with the explanation given by Loui (1999), namely that lecturers are concerned that they may lose control of a class, and that they will not be able to cover the acquired amount of subject content. It is also my experience that some lecturers become disheartened or discouraged by the attitude of students who are negative or refuse to participate in an activity that they find challenging and difficult, forces them to think, and does not allow them to be passive learners. The negativity of some students can be attributed to the fact that students are sometimes required to attend lectures where they are not encouraged to talk, solve problems, or even to struggle to understand new content. Such lectures may serve as platform for students, who are less active and involved in the learning process, to 'disappear', which may suit the students, for different reasons.

I also noted the concerns of students. Some often fear that their marks may be jeopardised by the performance of weaker group members. Some students are concerned that they may not get enough information from their lecturers. The competitive nature of cooperative and collaborative learning creates unique problems: Only a small number of students in any group can achieve the highest marks; achievement of the highest mark by a student comes at the expense of other students; students strive to attain higher marks than their peers, and they often view their peers' failures as an advantage; the 'winning' student tends to believe that a 'winner' deserves the 'reward/s' because s/he inherently is the better person (Houghton Mifflin College Division 1997).

2.5 Constructivist learning

The social constructivist view has emerged as a prominent approach to learning during the past decade. Gagnon Jr and Collay ([Sa]) mention that *'… work of Dewey, Montessori, Piaget, Bruner, and Vygotsky among others provide historical precedents for constructivist learning theory'*. Gravett and Geyser (2004:46) state that learning comprises the active construction of meaning. They say that acceptance of this statement not only forms the basis of the social constructivist view on learning as derived from the study of Vygotsky, but also is to a large extent the central concept in Piaget's view on learning. Hanley (1994) agrees when he states that the student must actively construct new information onto her/his existing mental framework for meaningful learning to occur.

The above viewpoints recognise the necessity for students to be actively involved in their own learning. Students, who are actively involved in their own learning, will fully comprehend the meaning of what they have learnt, and will be able to apply the newly attained knowledge. Knowledge cannot be constructed in isolation, because critical, analytical thinking processes required for knowledge construction must be developed by means of reflective processes. In order to make or attach meaning and to construct knowledge, reflection has to take place by interacting with others and receiving feedback on expressed viewpoints and experiences.

Constructivist learning theoreticians generally agree that a social learning environment (an environment in which students interact) is more conducive to learning as opposed to an individual or isolated non-social learning environment. Studies by Vygotsky emphasise that learning is indeed a social activity (Gravett & Geyser 2004:46).
It is my experience that any student brings to class a myriad of previous experiences. All students lived different lives before they registered for a specific course. All of them bring to any learning situation rich experiences that may add to the meaning of new experiences, or even form the base for new experiences to develop into new knowledge structures.

Constructivists not only believe that knowledge is constructed by students as a result of their interaction with the natural world in a socio-cultural context, but also believe that it is mediated by their prior knowledge (Fosnot 1996; Gravett 2001:13; Gravett & Geyser 2004:170). They argue that lecturers and students bring prior knowledge to a learning event, which over time and by means of interaction will be shared with peers in the same learning environment (Morphew 2000:1; Rea *et al.* 2000:137). The social

constructivist view of learning has therefore directed the attention to the role of dialogue in learning, while focusing on the role of peers in instructional practices.

The constructivist approach comprises the involvement of learners, facilitators and learning experts in authentic, challenging projects that are aimed at creating valuable, beneficial experiences that are more closely related to the collaborative practice of the real world (Bradshaw 2002). The involvement of facilitators and learning experts, harnessing authentic, challenging projects for the purpose of learning experiences, is regarded as crucial by Brooks and Brooks (1993) who make the following statement: *'Constructivist teaching practices...help students to internalize and reshape, or transform new information'*.

Teaching practices have to be adapted if the constructivist approach is followed. I suggest that lecturers rethink the traditional teaching approaches that include formal lecture presentations, as these approaches do not allow for the active participation of students. Students should be given tasks to accomplish and problems to solve that are relevant to them.

Where possible, real-life problems or situations as they occur in the industry should be simulated (Henze & Nejdl 1998:64). Thus, in constructivist learning environments, students have to apply their skills to (simulated) real-world situations (Cloete 2001:59). By doing so, students actively construct their own knowledge from the information and material presented to them and through their experiences of the world (Jonassen 1999:217; Mayer 1999:143).

Strommen and Lincoln (1992) suggest that play, experimentation and cooperative learning should be the focus of the constructivist learning experience, as learning occurs personally through activity and experience, and socially by working with others. Strommen and Lincoln (1992) state that play is a form of mental exploration where students create, reflect and develop their own understanding. Experimentation provides students with the means to manipulate and test ideas in reality and the opportunity to receive direct and concrete feedback with regard to the accuracy of their ideas and how they came about (Strommen & Lincoln 1992). Reeves (1995:222) is of the opinion that the learning environment should be as rich and diverse as possible.

As opposed to Strommen and Lincoln, Mayer (1999:146) emphasises that instructional design should rather seek to encourage the student to be cognitively active than to

focus on behavioural activities. I share this point of view. Mayer (1999:146, 147) confirms that constructivist learning depends on a student's cognitive activity, and discusses the cognitive processes that are involved in constructivist learning. These processes are as follows:

- Paying attention to relevant information in order to select it;
- Organising the selected information into coherent representations; and
- Integrating the coherent representations with existing knowledge.

Gagnon Jr and Collay ([Sa]) summarise the viewpoints of different authors when they indicate that four epistemological assumptions are considered with reference to constructivist learning. These assumptions are:

- Students who are involved in active learning physically construct knowledge;
- Students who are making their own representations of action symbolically construct knowledge;
- Students who convey their interpretation to others socially construct knowledge;
- Students who try to explain things that they do not completely understand theoretically construct knowledge.

I take the view that new information is actively constructed within a social and cultural context, and learning is influenced not only by cognitive and psychomotor behaviour but also by the affective behaviour of students.

2.6 The affective domain, the learning environment and Krathwohl's Taxonomy

Bastable (2003:333) is of the opinion that it is inevitable that students' feelings or emotions will be aroused to some extent when they are exposed to all types of educational experience. Students' emotional state often influence their behaviour (Adkins 2004), and there is evidence to suggest that emotion is a primary factor in the prediction of performance. Van der Horst and McDonald (2001:39) state that the emotions or feelings of a person will undoubtedly affect the person's quality of learning. They explain as follows:

> *'If one is upset it may, for instance, be difficult to do a learning task as one's attention may wander. The opposite is also true – if one is upset,*

> *talking rationally about the event which led to the upset can focus one's feelings and make one see things in perspective and therefore feel better.'* (Van der Horst & McDonald 2001:30).

I endorse the view that learning is never only cognitive or psychomotor in nature, but that it is linked to affective behaviour in significant ways. Therefore, affective objectives, like cognitive objectives, are used to guide the instructional process, and affective prerequisites are seen as supporting cognitive objectives (Martin 1989). Murray (2002), who is citing Brand (1994:143), places emphasis on the affective domain:

> *'It is in cognition that ideas make sense. But it is in emotion that this sense finds value.'*

The learning environment is responsible for creating and controlling the conditions under which students can succeed or fail. My previous experiences as a tertiary level student and conversations I had with numerous other students convinced me that the nature of the learning climate could not be overemphasised. I share the opinion of Gravett (2001:41) who states that students should be allowed to learn in a climate in which they experience safety, trust, acceptance, respect, support, connectedness and satisfaction. It is essential that a trusting relationship and an open, empathetic, accepting attitude by the lecturer toward students should be created to secure and sustain student interest and involvement in learning (Bastable 2003:331). Lecturers play a paramount role in establishing and maintaining a cooperative affective-social climate, as they set the tone for it.

Meaningful learning also requires that students feel safe in the educational setting. This feeling of safety specifically applies to the psychological safety of the student (Gravett 2001:41). Gravett (2001:41, 42) states that a feeling of safety will be created if students (paraphrased):

- Trust in the competence of the lecturer;
- Trust in the relevance and purposefulness of the course and the feasibility of its outcomes;
- Where feasible, are allowed to discuss and negotiate assessment criteria;
- Are allowed to find their voices in small groups (adult students are often anxious that they will not be able to cope with the demands of learning, particularly at the commencement of a course);

- Can build self-confidence and a sense of safety by being involved in sequenced activities;
- Experience encouragement, appreciation and affirmation of efforts;
- Experience the learning environment as non-judgmental; and
- Are introduced to the concept 'learning edges' (moving outside comfort zones). This can enhance a pervasive feeling of safety when they experience intense emotions during episodes of challenging learning.

A number of learning theories explain how learning occurs in a cognitive, psychomotor and affective manner. These theories are the taxonomies of Gagné, Bloom, Krathwohl, and Harrow (Van der Horst & McDonald 2001:31, 36, 39, 42). Krathwohl's Taxonomy is perhaps the best known of any of the taxonomies for the affective domain. It is one of the most commonly used taxonomies to assess the affective development of students, regardless of mode of education. Krathwohl's Taxonomy includes the notion of cumulative adoption of a value. This is an attractive characteristic of the taxonomy and encourages its application. Krathwohl's Taxonomy can also be applied to all learning areas and levels of development. It provides a structure that allows lecturers to design sequential series of activities in order to develop and assess the personal relationships and value systems of students.

Krathwohl's Taxonomy was specifically designed to organise levels of commitment. The five levels of commitment are described in terms of increasing levels of complexity regarding attitudes and emotional responses. They are:

- Level 1: Receiving or attending.
- Level 2: Responding.
- Level 3: Valuing.
- Level 4: Organising.
- Level 5: Characterisation / Internalisation.

The ability to compare or evaluate different responses (cognitive) usually goes hand in hand with the ability to take responsibility (affective). To take responsibility corresponds with the highest level of Krathwohl's Taxonomy, which is characterisation/ internalisation (Van der Horst & McDonald 2001:189). Seels and Gasgow (1990:28) define internalisation as follows:

'Internalisation refers to the process whereby a person's affect toward an object passes from a general awareness level to a point where the affect is internalised and consistently guides or controls the person's behaviour.'

Based on information given by Huitt (2001) and Van der Horst and McDonald (2001:39), Krathwohl's Taxonomy for the affective domain is described and presented in Table 2.1. The left-hand column indicates the levels of progression of affective development, as explained by Krathwohl. The column in the middle provides a short explanation of every level of development. The right-hand column provides actions or action words (verbs) employed by students. These verbs are indicative of functioning at the different levels.

Table 2.1: Krathwohl's Taxonomy for the Affective Domain
[Adapted from Van der Horst and McDonald (2001:39) and Huitt (2001)]

Level	Description	Action / Verbs
Level 1: Receiving or attending	At this level the student becomes aware of or sensitive to something. For example, the student is willing to listen to the lecturer. (The student must become receptive for the teaching event to be successful.)	Asks, chooses, selects, follows, holds, gives, etc.
Level 2: Responding	This level refers to the student's motivation to learn. For example, the student must be willing to respond and to adhere to certain practical rules in an online course. (The student is not only aware of the rules, but responds to them.)	Answers, writes, assists, discusses, conforms, helps, obeys, performs, presents, reports, tells, writes, greets, etc.
Level 3: Valuing	This level refers to the student expressing a value orientation. It includes accepting a value and committing to it. For instance, a person who is committed to adding value to the skills and knowledge of previously disadvantaged students may be involved in a computer literacy programme for them.	Believes in, has faith in, justifies, proposes, completes, describes, joins, shares, works, forms, initiates, etc.
Level 4: Organising	This refers to the development of a value system. For instance, a person may develop a value system concerning personal relations with members of another cultural group by being exposed to them willingly (level 1), by responding to them/ interacting with them (level 2), by attaching a value to the interaction and, finally, valuing the interaction.	Adheres, combines, defines, defends, classifies, relates, alters, arranges, forms judgments, identifies, orders, considers alternatives, etc.
Level 5: Characterisation or Internalisation	At this level a person's behaviour consistently reflects the values that s/he has organised into some kind of system. For example, students at this level have set principles and are willing to practise what they preach.	Acts, solves, verifies, influences, listens, proposes, qualifies, questions, displays, judges, illustrates mature attitude, discriminates, performs, etc.

This study concentrates on the affective experiences of students in an online learning environment and, where applicable and if necessary, explanation will be sought by referring to Krathwohl's Taxonomy.

2.7 Online learning and the affective domain

Online learning can also be interpreted as electronic learning (e-learning), or learning via the Internet or the World Wide Web (WWW). No consensus of opinion has been reached on a precise definition of the term 'e-learning', but there is some agreement that it involves the use of technology-based tools and processes to provide for customised learning anywhere at any given time. The emphasis in e-learning is on outcomes, and the goal is providing an individual with information or practice opportunities required to perform a task or solve a problem (Bastable 2003:458).

Online learning is characterised by the physical separation of lecturer and student, a connection between lecturer and student through computer technology, and the student at the centre of the process of learning (Chapman 1998; Palloff & Pratt 1999). E-learning can be delivered by means of a multitude of media and approaches. According to Bastable (2003:459), features of e-learning products have proved attractive to universities. Some of these features are (paraphrased):

- The nature and accessibility of the WWW;
- Activities as short as fifteen minutes required by the student;
- Customisation of subject content to the level of the student;
- Tractability of student performance and development of students;
- Simulations/virtual scenarios that allow interactive and reality-based education and training.

It is my opinion that the Internet enables lecturers to promote the effectiveness of teaching and learning. The variety of flexible teaching and learning opportunities that is available by means of the Internet will encourage lecturers to reconsider traditional methods of teaching. To add to this argument, Backroad Connections (2002) states:

> *'Online teaching is moving from an emphasis on web content to a more interactive structure that recognises the social and interactive elements of knowledge construction, and to pedagogical approaches that enable student-centred (e.g. problem-based, inquiry-based, discovery, and authentic learning) which [sic] are found to be extremely effective for online learning.'*

The Internet offers more options with regard to communication and interaction between lecturers and students and among students than is possible in the traditional

lecture method of teaching. The purpose of using the Internet often is to extend the interaction between lecturers and students beyond the limits of the traditional lecture and class situation. I endorse the view taken by Dangel ([Sa]) and Reeves (2002) that the Internet allows students to be more interactive with course content (as opposed to a paper-based learning environment). This interactivity may lead to the enhancement of the processes of teaching and learning. Technological tools such as the Internet offer multiple opportunities to students to develop life-skills, such as problem solving and decision-making, and to become independent learners (Dangel [Sa]).

Collaboration with lecturers and other students can be a strong motivating force for learning (Gunawardena 1995; Johnson & Johnson 1991; Johnson & Johnson 1989; Rovai 2002a; Wegerif 1998). It will be of benefit to students if online lecturers are frequently encouraged to purposively construct a positive social environment in an attempt to enhance the delivery of course content (Palloff & Pratt 1999). Failure on the part of lecturers to construct an environment conducive to learning may lead to students feeling isolated. Students may even experience low levels of satisfaction. Poor academic performance and increased attrition may result.

It is my opinion that interaction alone is insufficient to create a positive social dynamic in the online classroom. Although increased interaction among participants may lead to more opportunities for positive social penetration, it may also lead to competition, 'flaming'[6], and other forms of negative communication. Research demonstrates that the integration of verbal and non-verbal immediacy communication behaviours lets instructors move from mere interaction to authentic intimacy and interpersonal closeness. In short, an instructor's understanding of interaction and immediacy dynamics will affect the nature and quality of communication in the online learning environment (Woods & Baker 2004).

As discussed in Section 2.3, interaction can be seen as a form of cycle where the student has an intention, performs an action, observes and evaluates the effects of the action, and modifies future plans and actions based on the attained results. However, this model is flawed, as students are expected to wait until the effects of an action are observed, and should be able to remember why an action was performed. As feedback may occur only days later, these expectations do not hold. The conclusion is that the model only applies when students receive immediate feedback

[6] Sending of angry or insulting messages over the Internet

on their actions. Immediate feedback is problematic even when e-mail is used. This may be due to delays caused by extended networks or technological faults (Dix *et al.* [Sa]).

Dix *et al.* ([Sa]) explain the process of interaction by referring to the 4Rs, namely *request*, *receive*, *respond* and *release*. *Request* means that someone sends a message that requires action. The request is followed by a *receipt*, which means that the message is received. This is followed by a *response*, which implies that the receiver performs some necessary action. The action is followed by a *release*. *Release* means that the things used during the process are filed, or disposed of. Dix *et al.* ([Sa]) state that this is a near description of the process that is followed when a person deals with e-mail or uses paper. The process is schematically presented in Figure 2.1.

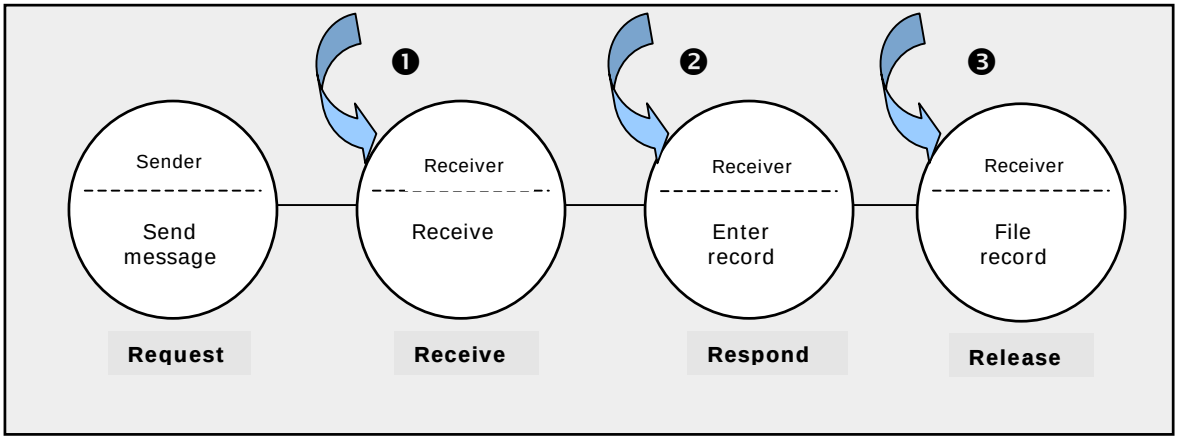


Figure 2.1: The 4Rs (Dix *et al.* [Sa])

This model not only explains the physical actions taken during the process of interaction in an online environment, but also adds to an understanding of the affective nature of interaction. As it emphasises the interpersonal nature of online interactions (the 4R's), it contributes to the discussion on the affective domain in online learning.

Wagner (1994:26) also regards these interactions as being interpersonal in nature, and is of the opinion that they occur within an instructional context (refer to Section 2.3). She distinguishes between such human interaction and interactivity that she describes as a characteristic of technology. Wagner further states:

> *'Interactivity may eventually be viewed as a machine attribute, while interaction may be perceived as an outcome of using interactive instructional delivery systems'* (Wagner 1994:26).[7]

Boettcher (1999) believes that a sufficient level of interaction with lecturers generally creates a *'sense of personalization and customisation of learning'*, and will assist a student to overcome feelings of remoteness, which is perhaps the greatest obstacle to fostering a student's sense of community in online distance learning. Arbaugh (2000:34) finds that perceived interaction difficulty is negatively correlated with student satisfaction, while perceived instructor emphasis on interaction is positively correlated with student satisfaction. He draws the following conclusion:

> *'It appears that the flexibility of the medium and the ability to develop an interactive course environment play a larger role in determining student satisfaction than the ease or frequency with which the medium can be used'* (Arbaugh 2000:43).

Her experiences as both student and lecturer within the online learning environment led me to strongly concur with the views held by Boettcher and Arbaugh. Lecturers have to be sufficiently involved with their students to prevent students from experiencing a feeling of having to struggle on their own. Minoli (1996:130) identifies four needs of students that should be considered in distance education. These needs are (paraphrased):

- **Interactivity:** Students need involvement and encouragement to ask questions and take part in discussions.
- **Instructional feedback:** Students need answers to their questions immediately, often after hours.
- **Elimination of time constraints:** Students need not be restricted by the training institution's office hours, but need to communicate and interact outside office hours.
- **Motivation**: Students need to have fun when they interact with other students and lecturers. The fun element is an important motivational factor.

While considering human-computer interaction/interactivity, Laurel (1991) argues that the perception of interactivity exists along a continuum that contains three variables, *viz*. *frequency, range,* and *significance*. Frequency indicates how often choices are

[7] Note: Authors such as Minoli (1996) and Laurel (1991) do not distinguish between these concepts.

available; range indicates how many choices are available; and significance indicates to what extent choices affect the situation. To these Laurel (1991) adds *the feeling of participation*, indicating how immersed one feels in the experience of interactivity. It is therefore assumed that one will be completely involved in a highly interactive experience, as one will have frequent opportunities to make a wide variety of significant choices.

It is my experience that adult students prefer to learn experientially. Kearsley (2000) makes a similar statement and adds that when the topic is of immediate value, adult students also prefer to approach learning as problem solving. The needs of adult students are encompassed in the constructivist approach to learning, and are reflected in Dewey's concern for relevant, active learning. I agree with Palloff and Pratt (1999) who state that online learning may serve the adult student well, if it is designed from a constructivist viewpoint that employs both active and interactive learning. The adult student is the embodiment of the lifelong student, envisioned by Dewey and advocated across contemporary society (Doshier 2000).

2.8 Web-based collaborative learning

Turoff (1995) states that active learning is brought about by group or cooperative efforts of students who actively interact and converse in order for new knowledge to emerge through the sharing of ideas and information. However, Oakley (1997) argues that cooperative efforts are often hampered by the difficulties that students experience to get together outside of formal class time. Oakley suggests that providing students with opportunities to access Web-based material may solve the problem of not being able to get together outside of classroom time. Furthermore, the suggestion is made that asynchronous computer mediated communication (CMC) may enable students to have more peer to peer and student to lecturer contact, as well as access to material developed by external experts. I support this suggestion as it correlates with my personal experiences as an online student. In addition, asynchronous CMC may lead to more successful collaboration between students. Global interconnectivity, coupled with the richness and diversity of information on the Web, potentially can facilitate a high level of collaboration that cuts across institutional and national boundaries (Harasim 1996).

There is little doubt that due to the availability of technology (including software supporting online learning) many lecturers will be either compelled or mandated by

management to use online learning to keep up with global pressures. Lecturers may also consider using technology because they may be convinced that it will enhance either the value of the courses they teach or the quality of the end product, namely the student. The current availability of a myriad of online teaching strategies to choose from and the fact that students are not classroom-bound provide lecturers with enormous challenges. Adams, Marshall and Cameron (1999) emphasise this challenging situation by stating:

> *'In the current volatile context of higher education, academics are grappling with complex issues in a way that has never previously been required of them.'*

Technologies, including information technology (IT), can be described as prostheses that are employed by people to accommodate their busy lives. Unfortunately, these 'prostheses' can alienate people from ordinary face-to-face contact. It is therefore important that lecturers keep in mind that the quality of learning does not depend on whatever teaching aids they use, but on good planning. By planning effectively, learning will be facilitated in the education situation. Bastable (2003:461) and Clark (1994:22) argue that the teaching medium does not have any influence on learning under any condition. They share the opinion that media, specifically IT, are merely enhancements that serve as vehicles to deliver instruction and carry educational programmes.

Statements such as these may be considered as holding ground, but I believe that the affective impact of the 'vehicle' (in the case of this study online learning via the Internet) cannot be ignored, as there is a relationship or an interaction between learning and the medium employed by the lecturer and the student. This relationship/interaction is influenced by the computer literacy and skill of the student and lecturer. Kozma (1994:21) reframes the debate by altering the question '*Does media influence learning?*' to '*Will media influence learning?*'. Meyer (2000:10) pinpoints the problem in the following statement:

> *'Previous studies on this issue excluded issues of … affective processes by which learning occurs, and which are essential for an understanding of the potential relationship between media and learning.'*

Cousin and Davidson ([Sa]) place emphasis on the importance of the task and not the medium of instruction by referring to Brosnan (1998:122) who states that

psychological influences on performance are minimised when computer users focus on the task and not the computer (the medium). On the other hand, McLuhan (1967:9) goes so far as to say that *'the medium is the message'* and *'it is the medium that shapes and controls the scale and form of human association and action'*.

The following statement by McLuhan reiterates my viewpoint that the media do influence learning:

> *'… our human senses, of which all media are extensions, are also fixed charges on our personal energies, and … they also configure the awareness and experience of each one of us'* (McLuhan 1967:21).

Through various learning activities within online collaborative learning projects, students have autonomy to manage their own learning. In a Web-based learning environment, the structure of teaching and learning changes from a teacher-centred to a student-centred approach, debasing the old *'sage on the stage'* attitude and accentuating students' construction of their own knowledge. In addition, the process of construction is dynamic in nature because hypertext[8] allows the discovery of knowledge in a non-linear manner (Bradshaw 2002).

In order to facilitate constructivist learning in an online environment, online activities should promote multiple perspectives, and/or have some of the following qualities: *active, constructive, collaborative, complex, contextualised, reflective,* and *authentic* (Gravett & Geyser 2004:170-2). These qualities are explained as follows (paraphrased):

- **Active:** Students must be engaged in mindful processing of information, as they are responsible for the results of an activity.
- **Constructive:** The activities should facilitate knowledge construction.
- **Collaborative:** Students work naturally in learning and knowledge-constructing communities, exploring each other's skills, while providing social support and observing the contributions of each member.
- **Complex:** Learning situations need to engage students in solving complex ill-structured problems as well as simple problems. Unless students are required to engage in higher order thinking, they will develop oversimplified views of the world.

[8] Computer hardware and software that allows users to create, store, and view text and move between related items easily and in a non-sequential way (Collins Concise Dictionary 2001:717).

- **Contextualised:** Activities should allow students to access different backgrounds and contextual materials to aid interpretation and argumentation.
- **Reflective:** When students articulate what they learn, they reflect on the processes, understand more, and are entitled to use knowledge that they have constructed in a new situation.
- **Authentic:** Students must see the relevance of the knowledge and skills to their lives, and apply them to their problems.
- **Facilitating multiple perspectives:** Activities should allow students to learn in a variety of ways. The more opportunities they have, and the more actively engaged they are, the richer their understanding will be.

Computers, telecommunications, and the WWW provide lecturers and students with many opportunities to learn in a cooperative environment (Galusha 1997). According to Crotty (1995), collaborative activities should be employed to engage students in learning activities where they will be encouraged to seek the assistance of their peers, but be responsible for constructing their own meaning. Brookfield (1986) states that participation and collaboration are of the most frequently mentioned characteristics of adult education.

As learning occurs within a social framework, online courses should be designed to include participation in a social context (De Verneil & Berge 2000:231). Collaboration with peers generates strong motivational powers, especially when a positive social dynamic is constructed. I believe that relational dynamics in an online environment is of the utmost importance, and failure to design the opportunity to relate to peers in an online course may lead to students experiencing feelings of isolation, which will most probably lead to the unfortunate result of students discontinuing the course.

Gabbert, Johnson and Johnson (1986:271) state that cooperative learning promotes an increased use of high-level reasoning strategies and critical thinking. They quote Romer (1995) who says:

> *'"Rather than isolating students into their own online world, the ideal e-learning environment gives them a chance to connect with other individuals, such as lecturers, facilitators, tutors, subject experts, practitioners, and other students in the quest of knowledge. The pre-eminent idea behind collaborative learning is that learning is significantly enhanced when the activities and perspectives of a group, shape*

knowledge that is generated and communicated, so that the facilitator's role as an authority and sole source of knowledge is reduced."'

Kozma (1987:22) makes the following important observation: *'To be effective, a tool for learning must closely parallel the learning process; and the computer, as an information processor, could hardly be better suited for this'*. The ability of multimedia to adapt to the learning style of each student serves as its most obvious advantage, and adds value to the concept of constructivist learning. Another advantage of multimedia with its myriad of options is the ability to simulate the complexities of 'real life'.

Multimedia provides lecturers with opportunities to plan student assignments and tasks, and students learn by completing the assignments or doing tasks. By planning for students to search through hyperspace[9], ample opportunity is provided where incidental learning can take place. Cronjé (1997) states that learning opportunities should however be carefully planned as students may be given too much freedom and too little guidance. The constructivist approach to learning is widely accepted by lecturers, but not always evident in their teaching practices, including online instruction (Morphew 2000:1).

The different types of media and their applications (technologies), as well as their advantages and limitations, are briefly explained in Table 2.2. The advantages and disadvantages of telecommunications-based and computer-based media are presented in the third- and second-last rows.

[9] The dimension within which data and other information can be exchanged, culminating in a single worldwide computer network, the Internet

Table 2.2: Advantages and limitations of types of media and technologies [Cloete (2001:65) as adapted from Forsyth (1996:29, 30)]

Types of media	Technologies	Uses and advantages	Limitations
Print-based	Hand-outs Study text Prescribed and recommended books Written/printed assignments	Easy to read Enable self-paced reading and study Can be re-read	No interaction Time delay in feedback
Visual-based	Diagrams Charts Pictures Transparencies Slides Photographs	Another method to enhance explanation	Can distract and confuse Memory intensive Can be used for decorative and not for functional reasons
Audio-based	Audio-tape cassettes Compact discs (CDs)	Another method to enhance explanation	No interaction Not possible to demonstrate practical applications
Audio-visual-based	Slide-tape Video Film	Show motion Capture attention Add emphasis and emotion	Expensive Hardware intensive Training should be given in use
Telecommunications-based	Telephone Fax Audio/videoconferences E-mail Internet	Interaction Immediate feedback	Hardware intensive Communication infrastructure intensive Training should be given in use
Computer-based	Computer-managed instruction Computer-based testing Computer-based instruction Electronic performance support systems	Another method to enhance explanation Interaction possible to some extent	Hardware intensive Communication infrastructure intensive Training should be given in use
Human-based	Lecturer Tutor Mentor Contact classes	Interaction Immediate feedback	Not always available when needed

Further arguments for and against online learning (the advantages and limitations of online learning) are emphasised by Aase (2000). They are as follows (paraphrased):

- **Advantages:**
  - **Convenience:** Online learning is possible, anytime, anywhere.
  - **Immediacy:** Students receive speedier feedback on assignments.
  - **Contact:** More instructor-student and peer-to-peer contact is possible.
  - **Student control:** Students have a bigger say in what or how they learn.
  - **Technology:** Students and teachers gain proficiency in finding, using, and constructing information on the Internet.
  - **Prestige:** Online programmes carry a cutting-edge cachet.
  - **New learning:** New technology enables students and lecturers to construct new knowledge in new ways.

- **Limitations:**
  - **Facelessness:** Online learning lacks verbal and facial cues, and body language.
  - **Hitches:** It is hampered by technological breakdowns.
  - **Workload:** It is much more work to develop, produce, teach, and take a course online.
  - **Cost:** It is more expensive to produce courses that include audio, video and interactivity.
  - **Support:** Problems are finding technical support out of hours; offering professors incentives to produce and teach online; revising a tenure system that discounts online teaching; revamping or building registration, enrolment, and payment methods; and deciding where online courses will "fit" – integrating online courses into every department, spinning off an online unit, or entering into a partnership with an outside institution.
  - **Quality:** New methods are required for accreditation, and measuring outcomes.

After taking an online course, many students said that they would gladly give up the classroom, as well as all the inconveniences associated with physically going to class such as driving long distances, finding a parking space and listening to monotonous lectures (Aase 2000). According to Aase (2000), students also say that they often enjoy more attention from and interaction with their lecturer and peers in an online course, and that they find online courses to be 'more rigorous, relevant, and satisfying'. I have to agree with Aase, as I had similar experiences as a student. On the other hand, there are many variables that influence the teaching-learning process, regardless of the mode of teaching.

Smith (2002) is of the opinion that an online group is one of the most powerful environments for transformative learning to take place. Students are provided with a social context in which they can construct and reconstruct the meaning of experiences. Smith also believes that emotions are expressed in a safe, collaborative, creative environment. As opposed to Smith, I do not believe that students necessarily feel safe to express their emotions in an online environment (even though it may be a faceless one), as they may not experience it to be cooperative, may fear being misinterpreted, since they may not know their peers at all. Personality traits, as well as knowledge and skill of students with regard to both the subject content and computer technology, may nullify the planning and good intentions of the best lecturer in the field.

Smith (2002) further states that *'… virtual teams have become the vehicle through which group work is accomplished in distance learning environments'.* She says group work give students the opportunity to socialise, experience a sense of belonging, and co-construct new knowledge. However, working in virtual groups does create many challenges. Some of these challenges are trust, communication, tight deadlines, and team cohesiveness. Smith even states that the nature of virtual groups diminishes certain social interaction characteristics. I agree with Smith about the challenges facing online teaching and learning.

There are multiple learning advantages to working in online groups. One such an advantage is the creation of learning communities. Another benefit lies in the opportunity to work collaboratively and to generate new knowledge (Smith 2002). McDonald (2002:13) considers the advantages of online education to be the result of three characteristics, namely asynchronicity, efficient information access, and increased social distance.

McDonald (2002:12) is also of the opinion that *'… online education blurs the line between distance education and traditional, place-based education primarily because of the opportunity for discussion, collaboration, and the potential for building a sense of community among participants'.* Online education provides access to peers and, by so doing, creates a network of scholars for the purposes of intellectual exchange, collective thinking, and socialisation (McDonald 2002:12; Smith 2002). These aims are best accomplished by creating environments that are motivated by discovery, reciprocal feedback and exchange of ideas (Smith 2002).

According to Danchak (2003), courses presented by means of e-learning are characterised by asynchronous activities that are predominantly faceless. In a face-to-face situation, students can make eye contact and see a lecturer nod in approval. They can put a face to a name, and judge the personality of the lecturer. Students can decide whether the lecturer is someone who can be trusted. Affective interaction with lecturers is one of the main reasons for students being motivated. Dewar and Whittington (2000:420) state that students should have an interpersonal relationship with their lecturers, and mention that students particularly need to communicate. The question on how students experience the absence of the aforementioned situations in an e-learning environment should be answered.

Planned learning usually includes the attainment of skill and knowledge, and this is also true when IT is employed (Cousin and Davidson [Sa]). However, as was stated in

Subsection 2.6.1, learning is never only cognitive or psychomotor in nature. The emotions and feelings of a learner undoubtedly affect the quality of her/his learning. What students learn is organised by their emotions. More educators share this viewpoint held by Gravett and Geyser (2004:38) and Van der Horst and McDonald (2001:39). Cousin and Davidson ([Sa]) state:

> *'One should consider cognition and emotion as two closely related, ongoing changing streams of experience that interact with one another and affect overt behaviour in subtle complex ways.'*

This view is also held by Bastable (2003:327) who is summarising the viewpoints of different authors when he says:

> *'Bloom et al. (1956) and Krathwohl and associates (1964) developed a very useful taxonomy known as the Taxonomy of Educational Objectives, as a tool for systematically classifying behavioural objectives. This taxonomy … is divided into three broad categories or domains: cognitive, affective and psychomotor. … (All) three domains of learning are … interdependent and can be experienced simultaneously. Humans do not possess thoughts, feelings and actions in isolation of one another and typically do not compartmentalize learning. The affective domain influence the cognitive domain and vice versa; the processes of thinking and feeling influence psychomotor performance and vice versa (Menix, 1996).'*

Keller (1979) addresses the affective aspect of instruction according to a four-point strategy, which includes *attention, confidence, relevance* and *satisfaction*. This he calls the ACRS model of instructional design. According to this design, a student will only be satisfied once s/he is able to use and continue using knowledge. Cloete (2001:39) emphasises the importance of assessing the level of satisfaction experienced by students after completing an online course.

2.9 Staying on an online course

According to Berge and Huang (2004), dropout historically has challenged educational systems, but seems to be especially acute in distance learning. According to a number of studies, the dropout rate for distance education is believed to be ten to twenty per cent (10-20%) higher than in face-to-face learning events (Carr 2000;

Diaz 2002; Frankola 2001:55). Berge and Huang (2004) state that 'student success' (specifically with regard to online learning) has become one of the primary issues in discussions on the quality of higher education. Student success usually includes the idea of persistence: the idea of a student who persists in trying to complete a course.

According to Cronjé (1996), four participants in his online course left because *'…they had problems with the stability of the Internet connections and did not feel comfortable about continuing while they were not always sure of getting their messages, or being able to access the Web.'* I do not believe that the students' reasons for leaving the course were indeed so simple. More precise answers could be obtained by asking questions such as: *What kind of feeling (emotion) did these students experience that convinced them to leave the course? Why did the other students stay on the course?* I believe that should lecturers determine what cause students to stay on a course, they would be able to build those factors into future courses, and support online students better. It has to be kept in mind however, that negative affective experiences are not the only reasons why students drop out of courses.

An online student should indeed possess unique qualities to be successful. The website *Illinois Online Network (ION)* provides potential online students with advice on qualities that are needed to successfully complete a course. According to the ION (2003), online students should (paraphrased):

- Be open-minded about sharing life, work, and educational experiences as part of the learning process;
- Be able to communicate through writing;
- Be self-motivated and self-disciplined;
- Be willing to 'speak up' if problems arise;
- Be willing and able to commit themselves to four to fifteen hours per week per course;
- Be able to meet the minimum requirements for the programme;
- Accept critical thinking and decision-making as part of the learning process;
- Have access to a computer and a modem;
- Be able to think ideas through before responding; and
- Believe that high quality learning could take place outside the traditional classroom.

I agree that the online process requires commitment on the part of the student, especially with reference to willpower to succeed and self-discipline to follow the course schedule. It is difficult for a student to catch up once s/he gets behind schedule. It is also my belief that the student should desire the online experience, and should also have a desire to complete the course. Unfortunately, not all students possess the necessary qualities to complete an online course (ION 2003). However, quite a large number of websites provide prospective online students with tips and assistance on how to be successful in their online learning endeavours. Two of these websites are that of the *e-Learning Centre* and the *Online College @ Santa Barbara City College* (2004).

Berge and Huang (2004) state that retention in e-learning is a relatively new area of research. According to them, retention of students in the e-learning environment is a complex issue owing to a number of factors such as:

- Changing landscapes in learner demography;
- Changing roles and responsibilities;
- The myriad of learning opportunities;
- Changing needs and perceptions; and
- Changing modes of instruction and learning.

Landscapes in learner demography are indeed changing, as more younger and older people are becoming aware of the possibilities of online learning. Roles and responsibilities are changing, as students are becoming more responsible for discovery and self-learning, while lecturers are assuming the role of facilitator (Reid 2000). It is my experience that needs and perceptions as well as modes of instruction and learning are changing. The availability of technology by means of online access and a desktop or portable computer means that students are never more than a phone call away from the 'classroom'. I believe that all these factors complicate the issue of keeping students from leaving an online course.

There are however not a shortage of theories concerning students dropping out of e-learning courses. Frankola (2001:56) offers some reasons for students quitting online courses. I concur with the reasons offered, as I had experienced some of these aspects myself, although I did finish the online course I embarked on. The reasons are (paraphrased):

- Lack of time;
- Lack of management oversight;

- Lack of motivation;
- Problem of motivation;
- Lack of student support;
- Individual learning preferences;
- Poorly designed courses; and
- Substandard/inexperienced lecturers.

McVay (2001) offers several suggestions about the design and orientation of online courses to enhance retention in e-learning. Probably the most helpful suggestion, one which I fully support, is that organisations should implement a student orientation course. This course should be taught online in its entirety, and should simulate the actual e-learning environment that students encounter in online courses. Student feedback convinced McVay that the technology used in online learning should not be the only focus of such an orientation programme. McVay (2001) makes the following suggestions:

- Students should be assisted in becoming aware of adult learning theory and the manner in which they could apply it to their context.
- Self-awareness should be cultivated regarding a student's personal suitability for online learning.
- Discussion should take place on how students could adjust to assist in the successful completion of their studies.
- Students should be provided with ample opportunities to engage in extensive online interaction to communicate with the lecturer as well as their peers.
- Students should be allowed a significant amount of time to reflect on their new environment.

A study by Wegerif (1998) indicates that a student's individual success or failure in a course depends upon the extent to which s/he is able to cross a threshold from feeling like an outsider to feeling like an insider. Effective student and lecturer preparation for the online teaching and learning environment can make a significant impact on student success, thus increasing retention and course completion.

2.10 Previous research on affective experiences in online environments

Most studies related to online learning and conducted on cognitive issues in the past excluded affective factors from their considerations. 'Traditional' computer-based education not only lacks both intellectual and emotional 'affordances' (Eisenberg 2002:1), but also less attention is paid to studying the affective and social components of education. As far as online learning is concerned, this is due to the overwhelming bias against emotion as a subject worthy of study (Bauman 1997; Lee *et al.* 2004; Murray 2002). It was the profound influence of behaviourism on educational psychology, which had little interest in non-cognitive aspects of learning such as beliefs, emotions, attitudes, and motivation, which led to this unfortunate situation (Lee *et al.* 2004). Adkins (2004) confirms this state of affairs concerning online learning, and calls its affective domain the 'last domain of human learning', even the 'Final Frontier'. He simply states:

> *'Training professionals have shied away from the affective domain because of its complexity'* (Adkins 2004).

In order to demonstrate that limited research has been conducted on the affective experiences of students involved in online learning, the literature searches conducted at the initial stage of this study via the Internet are described. Initial searches were conducted, as I planned a study that would not be influenced too much by the literature, but would produce unique findings. A short description of articles found and indications of their applicability or inapplicability are provided. Initially, two Internet search engines,[10] namely *Google* and *Yahoo!,* were used, and the searches were conducted by means of keyword combinations. Searches were done intermittently from July 2002 to January 2003. Table 2.3 contains the names of the search engines, the number of searches conducted, and the keyword combinations used.

[10] A computer programme used for searching data on the Internet

Table 2.3: Search engines, number of searches, and keyword combinations

Search engine	Search	Keywords
Google	1	Affective online evaluation
	2	Affective evaluation online
	3	Online learning affective domain
	4	Affective domain evaluation
Yahoo!	1	Affective evaluation online
	2	Online evaluation of affective development
	3	Evaluation online of affective development
	4	Affective domain evaluation online

The search engines *Google* and *Yahoo!* are well known to Internet users. *Google,* as well as *Yahoo!,* is seen as a reliable search engine and is often used to assist in finding literature from peer-reviewed sources. This is confirmed by an information specialist attached to the Academic Information Services of the Faculty of Education within the University of Pretoria. These two search engines are regarded as reputable and dependable, and for this reason chosen for the retrieval of information. Keyword combinations used for *Google* and *Yahoo!* were varied to extend the possibility of finding hits.

Table 2.4 provides an overview of hits (articles) found during the initial searches. The origin and nature of the articles are indicated.

Table 2.4: Articles that appeared to be about the affective experiences of students

Author and article	Nature	Short description of content
Calderone, AB. 1994. Computer assisted instruction: Learning, attitude, and models of instruction. *Computers in Nursing,* 12(3): 164-170.	Article from peer-reviewed journal	The focus is on learning and learning outcomes. *Attitude is considered a learned predisposition to react to a person, object or idea in a consistent way (Calderone 1994:166).*
Fetherston, T. 2001. Pedagogical challenges for the World Wide Web. *Education Technology Review,* 9(1). Available: http://www.aace.org/pubs/etr/fetherston.cfm	Article from peer-reviewed journal	The focus of this article is on the construction of knowledge by means of technological learning/teaching strategies.
Herman, A and Downie, J. 1998. *Assessing and evaluating student contribution to electronic discussion.* Available: http://www.curtin.edu.au/learn/unit/NursingHonours/	Research article	This article focuses mostly on the computing skills and abilities of students.
Hooper, S and Rieber, LP. 1995. Teaching with technology, in *Teaching: Theory into practice,* edited by AC Ornstein. Needham Heights, MS: Allyn and Bacon: 154-170. Available: http://www.nowhereroad.com/twt/index.html	Article from peer-reviewed journal	This article is about the integration of computer-based education and the student's processing of content.
Huitt, W. 2000. *Desired student outcomes. Educational Psychology Interactive*. Valdosta, GA: Valdosta State University Available: http://chiron.valdosta.edu/whuitt/col/student/desout.html	Article from peer-reviewed journal	The authors focus on the speed of change, the importance of the learning environment and conditions for learning.
Martin, BL. 1989. *A checklist for designing instruction in the affective domain. Educational Technology*, August:7-15 Available: http://plaza.v-wave.com/kegj/mar.html	Article from peer-reviewed journal	The author does not address online learning. She addresses face-to-face education exclusively.

Articles with the highest possibility of addressing issues that are related to this study (as reflected in the keyword combinations) are listed in Table 2.4. The short descriptions of the contents of the articles indicate that research materials (including publications, journal articles, discussions, and newsgroups) on issues of affective experiences in online learning are seriously limited. There also seems to be limited information about the rating or classification of emotions according to affective structures. These ratings are done to determine at which affective level a student operates during an online course.

As the initial searches in *Google* and *Yahoo!* proved to be unsatisfactory, I enlisted the help of an information specialist, who recommended searches in the *PsycLIT* and *Eric* databases. These searches were conducted during August 2004. The following keywords were used in the *PsycLIT* database searches: *e-learning, online or web-based and instruct**[11] *or learn*, feelings or affective, computer-assisted instruction and emotion**. These searches yielded ten hits that seemed to be useful for the purpose of this study. Table 2.5 contains the titles of the ten hits that were indicated as the most appropriate to the keyword searches.

Table 2.5: The ten most appropriate hits found to keyword searches in the *PsycLIT* database

Number	Year of publ.	Nature	Author/s	Title
1	2003	Dissertation	Heinemann, MH	Teacher-student interaction online and learning in Web-based graduate theological education.
2	2003	Dissertation	Valentine, JF.	Motivation, culture, and instructional design in modern language education: An ethnographic case study of an international MBA program.
3	2003	Article from peer-reviewed journal	McKenzie, F, Scerbo, M, Cantazaro, J and Philips, M.	Nonverbal indicators of malicious intent: Affective components of interrogative virtual reality training.
4	2002	Article from peer-reviewed journal	McCrary, N.	Investigating the use of narrative in affective leaning on issues of social justice.
5	2002	Article from peer-reviewed journal	Lou, Y, Abrami, PC and d'Appolonia, S.	Small group and individual learning with technology: A meta-analysis.
6	2001	Article from peer-reviewed journal	Schmidtmann, H and Grothe, S.	Emotions of participants of virtual seminars / Wie fuehlt man sich in einer virtuellen Arbeitsgruppe?
7	2001	Article from peer-reviewed journal	Steffens, K.	Self-regulation and computer based learning.
8	2001	Article from peer-reviewed journal	Konrad, U and Sulz, K.	The experience of flow in interacting with a hypermedia learning environment.
9	2002	Article from peer-reviewed journal	Nikolova, OR.	Affective aspects of student authoring for foreign language learning.
10	2000	Article from peer-reviewed journal	Yang, SC.	Hypermedia learning and evaluation: A qualitative study of students' interaction with the Perseus Project.

[11] The asterisk (*) after the word allows for its declension, e.g. instructive, instruction, instructs.

When the abstracts of the ten hits were read, only hits number 1 and 6 were found to be relevant and useful. Article number 1 was about teacher-student interaction in Web-based education, but the research study under discussion was conducted according to a quantitative design. Article number 6 was relevant because it addressed some of the issues that were of concern to me. An excerpt from the abstract of article number 1 is provided in Textbox 2.1 and an excerpt from article number 6 is provided in Textbox 2.2.

Text box 2.1: Excerpt from abstract of article number 1 from *PsycLIT* database

'Many theological educators ask how online classes can provide students with the kind of personal teacher-student interaction that is needed in a healthy and holistic approach for ministry. … This combination of practical concern in promising research results led to a quantitative study aimed at examining the relationships between three major types of teacher-student interaction (organizational, social and intellectual) and two types of learning outcomes (cognitive and affective) in a Web-based environment with no face-to-face contact. … Scales were devised for this purpose using five-point Likert-style items. Analysis revealed that survey participants, on average, agreed that their instructor facilitated adequate social, organizational, intellectual and overall interaction. They also reported significant cognitive and affective learning gains. … These results support the hypothesis that teacher-student interaction is an important factor in cognitive and affective learning' (Heinemann 2003:1189).

Text box 2.2: Excerpt from abstract of article number 6 from *PsycLIT* database

'Examined participants of a virtual seminar to measure emotions and norms within groups and compare them with participants of a real life seminar. 60 long-distance students (40 virtual seminar participants and 20 real life participants; females outnumbered males) in Germany completed a questionnaire on emotions and norms, cohesion and conformity in groups (E. Ardelt-Gattinger and W. Schloegl, 1998). The results show that in both settings, Ss scored higher on positive than on negative emotions; group norms were perceived similarly' (Schmidtmann and Grothe 2001:177).

Following the searches done in the *PsycLIT* database, a search was launched in the *ERIC* database by using the following keywords: *e-learning, online or web-based and instruct* or learn*, feeling* or emotion* or affective, computer-assisted instruction and emotions*. The search yielded 45 hits that were possibly appropriate to the study or useful to my purposes. However, most of the articles reflected research conducted about schoolchildren or children with behavioural problems and disabilities such as autism. Of the 45 hits, only nine were possibly appropriate. Information on these nine articles is set out in Table 2.6. The numbers in the first column of Table 2.6 represents the numbers of the hits found in the search.

Table 2.6: The nine most appropriate hits found to keyword searches in the *ERIC* database

Number	Year of publ.	Nature	Author/s	Title
1	Sept.-Oct. 2003	Article from peer-reviewed journal	DeWert, MJ, Babinski, LM and Jones, BD.	Safe passages: Providing online support to beginning teachers.
10	Oct. 2002	Article from peer-reviewed journal	Kort, B and Reilly, R.	Theories for deep change in affect-sensitive cognitive machines: A constructivist model.
11	Nov. 2002	Article from peer-reviewed journal	Hammilton-Pennell, C.	Getting ahead by getting online.
13	Summer 2002	Article from peer-reviewed journal	King, FB.	A virtual student: Not an ordinary Joe.
20	January 2002	Article from peer-reviewed journal	Eisenberg, M.	Output devices, computation, and the future of mathematical crafts.
21	Dec 2001	Article from peer-reviewed journal	Harmon, SJ and Jones, MG.	An analysis of web-based instruction.
24	Summer 2001	Article from peer-reviewed journal	Bibeau, S.	Social presence, isolation, and connectedness in online teaching and learning: From the literature to real life.
30	2001	Article from peer-reviewed journal	Yu, Y.	Competition within computer-assisted cooperative learning environments: Cognitive, affective and social outcomes.
41	Summer 2000	Article from peer-reviewed journal	Astleitner, H and Leutner, D.	Designing instructional technology from an emotional perspective.

It appears that limited research has been done that incorporates the perspective of the student in the online learning environment. Rather than obtaining data from students themselves, most of the studies on affective issues in online education reflect the experiences of lecturers, or suggest strategies for lecturers to address the affective domain of learning. Of the studies found in the *ERIC* database, only five considered the affective experiences of students from the viewpoints of students.

Of the nine studies indicated in Table 2.6, numbers 10, 24, and 30 were of value to me. An excerpt from the abstract of study number 10 is presented in Text box 2.3, while Text box 2.4 and Text box 2.5 contain excerpts from the abstracts of hits number 24 and 30 respectively.

Text box 2.3: Excerpt from abstract of article number 10 from the *ERIC* database

'There is interplay between emotions and learning, but this interaction is far more complex than previous theories have articulated. This article proffers a novel model by which to regard the interplay of emotions upon learning and discusses the larger practical aim of crafting computer-based models that will recognize a student's affective state and respond appropriately to it so that learning will proceed at an optimal pace' (Kort and Reilly 2002a:56).

Text box 2.4: Excerpt from abstract of article number 24 from the *ERIC* database

'Discussion of the Internet focuses on the role of social presence and its relation to feelings of isolation and connectedness in asynchronous online discussions in higher education. Examines the participation of teachers and students in building a community of students, and the dilemma of too much or too little social interaction' (Bibeau 2001:35).

Text box 2.5: Excerpt from abstract of article number 30 from the *ERIC* database

'Examines the effects and implications of embedding the element of competition in computer-based cooperative learning situations on student cognitive, affective, and social outcomes. Results of statistical analyses of Taiwanese fifth graders show that cooperation without inter-group competition engendered better attitudes and promoted more positive inter-personal relationships' (Yu 2001:99).

Some of the reported research mentioned above was conducted in 2001. The number of studies found was however very limited. The same holds true for reported research mentioned above that was conducted in 2002. The number of studies found on affective experiences has increased since 2003. However, most of these studies emphasise the viewpoints of lecturers and not those of students. This study focuses on affective experiences as explained and described by the students involved in an online course, and forms part of a new 'developing wave' of studies.

The limited number of relevant articles reflects the lack of research conducted on the phenomenon under study, and emphasises the uniqueness of this research study. Its uniqueness can also be attributed to the unique format of the course module with its focus on e-learning (a game played in cyberspace) and the uniqueness of the relationship between participants and the e-learning event (a relationship that would force them to attach meaning to their experiences within the context of this online learning event). Refer to Subsection 1.14.1. Relevant information obtained from the literature searches, especially information retrieved from the databases *ERIC* and *PsycLIT*, will be integrated into the study as the study develops.

2.11 The nature of the experiences of the participants

Within the context of the game *CyberSurfiver* (in reality, an academic module with its focus on e-learning), the affective experiences of participants in an online environment were investigated. In the context of this study, affective experiences were regarded as *feelings* and not as *emotions* or *attitudes*. Although it could be argued that these three concepts were interrelated, the concept *'feelings'* was identified as the key term that would assist in understanding the affective implications of online learning. This conclusion was made after exploring different definitions of the concept 'emotion'.

Definitions of the concept 'emotion' are numerous and often conflicting (Salovey & Sluyter 1997:195), but a variety of definitions of this concept, as presented in Textbox 2.6, collectively proves that the concept 'emotion/s' is predominantly explained by incorporating the term 'feeling' into the definition.

Text box 2.6: Definitions of the concept 'emotion/s'

Emotion - mental state in which feeling*, often intense, as love, hate, or sorrow, is experienced, often accompanied by a physical change or manifestation, as blushing, laughing, or crying (Collier's Dictionary 1977:334).
Emotion – a strong feeling*, such as joy, anger, or sadness. Instinctive or intuitive feeling*, as distinguished from reasoning or knowledge (South African Concise Oxford Dictionary 2002:378).
Emotion – short-term feeling*, states including happiness, anger or fear, that mix varying amounts of pleasantness-unpleasantness and arousal-calm, among other sensations (Salovey and Sluyter 1997:23).
Emotions – complex, subjective experiences* that have many components including physical, cognitive, organizing, and expressive, as well as highly personal, subjective meaning (Huitt 1999a).

* **My emphasis**

By analysing these definitions, it was decided to use the concept '*feelings*' to represent the affective experiences of participants. However, definitions of other concepts relating to the concept 'emotion' also had to be established, as this study was specifically concerned with the affective implications of online learning. The definition of 'emotions' used by Huitt (1999a) also includes the term 'experiences', while both the definitions of the terms 'emotions' and 'feeling' include the word 'subjective'. His definitions of these terms (with connotative affective meanings such as 'affect', 'emotion', 'feeling' and 'subjective') are set out in Table 2.7.

Table 2.7: Definitions of terms associated with the affective domain (Huitt 1999a)

Concept	Definition
Affect	A feeling* or emotion* as distinguished from cognition, thought, or action.
Emotion	An intense feeling*; a complex and usually strong subjective* response, as love or fear; a state of agitation or disturbance. The application of mental processes to the world of feelings*, interpersonal relationships, and inanimate objects to which the person is attached.
Feeling	Sensation perceived by the sense of touch; an indefinite state of mind; an affective* state of consciousness, such as that resulting from emotions*, sentiments, or desires; an emotional state or disposition; non-intellectual or subjective* human response.
Subjective	Proceeding from or taking place within an individual's mind.

*** My emphasis**

Huitt's definitions presented in Table 2.7 also indicate that the word *feeling/s* links the different concepts associated with the affective domain. Feelings are subjective human responses, and these responses can only be researched (and interpreted) by transcribing the verbalised statements of participants in a study.

2.12 The literature and the research question

The relationship between the literature obtained and the research question '*What are the affective experiences of students in an online learning environment?*' can be indicated in broad terms. The following points of convergence between the literature found and the research study are relevant:

- *CyberSurfiver* required teamwork or *collaborative learning*, as participants had to work together in groups (tribes) to complete assignments. This form of student-student interaction was chosen because it stimulates higher order critical thinking and promotes understanding (Alavi 1994; Palloff & Pratt 1999). Collaborative projects such as the *CyberSurfiver* assignments may lessen feelings of isolation and promote a sense of a learning community in the Web-based classroom (Abrahamson 1998; Palloff & Pratt 1999). Cooperative projects provide students with a framework to develop deeper relationships with others (Cronjé 1997).

- *CyberSurfiver* was planned to be a *constructivist learning* experience for participants. Participants were divided into tribes and were dependent upon each

other for certain activities, but also had individual assignments. Harasim (1996) states that collaboration contributes to higher order learning through cognitive restructuring; *i.e.* new ways of understanding content emerge due to contact with new or different perspectives (constructivist learning).

- *CyberSurfiver* was designed to be a *cognitive, psychomotor and affective learning experience*. Considering the authentic learning experiences of participants during the module, and the manner in which understanding was sought, the emotional experiences of the participants could not be ignored (Fetherston 2001). The game was expected to open the minds of the participants to the sense of the audience participating in online learning, as well as to the unwritten rules thereof. By playing *CyberSurfiver*, the participants were exposed to the conceptual models and practical skills required of tertiary students to become part of the online community (Fetherston 2001).

2.13 The conceptual framework

The conceptual framework for this study is depicted in Figure 2.2. In developing a conceptual framework for this study, the literature in context, the nature of the *CyberSurfiver* module, and the specific research objectives were considered. The students and the lecturer form the central part of this framework. The arrows that link the students and lecturer symbolise the interaction that took place between them. As the interaction during the *CyberSurfiver* module was supposed to happen only by means of online technology, and as the study focused on the feelings experienced by the participants during the online module, the concepts '*feelings*' and '*technology*' enclose the students, the lecturer and their interaction in the form of an oval-shaped circle. The *CyberSurfiver* online learning environment, representing the employment of constructivist learning and teaching strategies, as well as the persons involved, and their interactions and feelings, are depicted by means of a square.

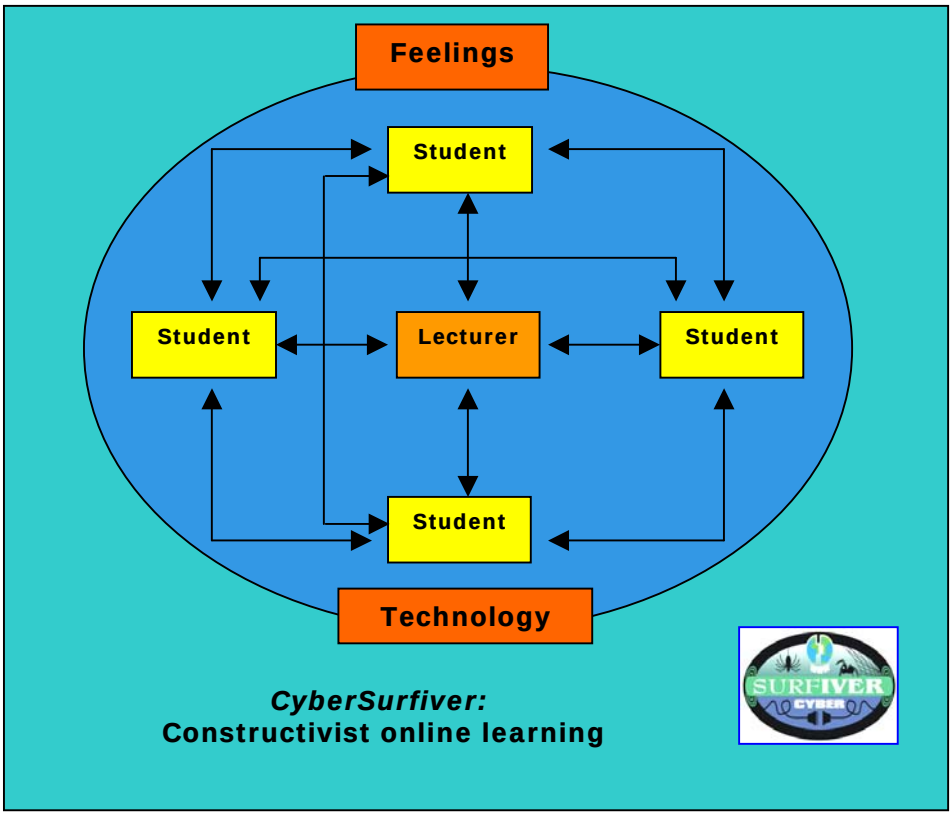


Figure 2.2: Conceptual model

The concepts presented in the conceptual framework are briefly discussed:

- ***CyberSurfiver*:** The *CyberSurfiver* module was a case study that provided the lecturer with the opportunity to investigate the complexities involved in using a metaphor in an adult online learning environment. The module was based on the reality game show *Survivor*©.

- **Student:** A student is a person who is taking a particular study course and is in the process of learning. The subject matter of different courses varies according to the nature of the course. The learning activities of the student also depend on the nature and the content of the course. Students involved in this study were students of the University of Pretoria, and registered for the Master's Degree in Education (Computer Assisted Education) [MEd (CAE)] that incorporated a specific module called RBO880. The content of the RBO880 module was the *CyberSurfiver* game. Thus, the student who played the *CyberSurfiver* game was required to do so because s/he was registered for the module that was presented as one of a number of modules that made up the MEd (CAE), as presented by the University of

Pretoria. For the purposes of the study the students are referred to as participants.

- **Lecturer:** The facilitator of *CyberSurfiver* was the lecturer who presented the MEd (CAE) RBO880 module. She was registered for the PhD in Computer Integrated Education (CIE) from 2002 to 2004, but was not a University of Pretoria employee. She was specifically involved in the module, as she was interested in the complexities involved in using online games in adult education. She, therefore, based her PhD research on the module that she presented.

- **Interaction:** The *CyberSurfiver* module required that all interaction between the lecturer and students, and among students, had to occur online. The lecturer of the module set this requirement. As the content of the module was about online learning, the lecturer decided to 'force' the students to experience first hand what online was all about. This meant that all communication during the *CyberSurfiver* game had to take place by means of various technological tools. By using the various tools, students were required to interact, to work together and to promote cooperation. The interaction required for this module had to be student to lecturer, lecturer to student as well as student to student in nature.

- **Technology:** In the context of this study, technology refers to computers, and the multimedia employed by the lecturer as tools for instruction in the *CyberSurfiver* module. Technology included the Internet, Web-based software, and communication software employed by the lecturer and participants to communicate, such as that available on *Yahoo! Groups*.

- **Feelings:** The concept 'feelings' represents the affective experiences of (or the emotions experienced by) the *CyberSurfiver* participants during the course of the module. Feelings are subjective human responses, and these responses can only be researched (and interpreted) by transcribing the verbalised statements of participants in a study. Feelings expressed by the participants were analysed to interpret the meaning of their affective experiences in the online learning environment. The expressed feelings were directly related to different aspects of coping within the online environment – an environment where interaction occurred mainly by means of technology and where students were prohibited from discussing issues pertaining to the module face to face.

- **Constructivist online learning environment:** The *CyberSurfiver* module was designed in accordance with the constructivist paradigm, in which active learner participation is an important component of the learning process, and in which learners construct their own knowledge while they engage in authentic learning activities. Cooperative and collaborative teaching and learning activities were employed over the Internet. Students experienced learning in the Web-based environment in which learning opportunities were created.

2.14 Summary

Chapter 2 provided a discussion on the literature obtained that related to the context of the study. The research cited touched upon issues with regard to online learning, collaborative learning, social constructivist learning, and affective experiences in online learning. An explanation of the limitations of literature about the affective experiences of students in online learning was provided. The conceptual framework for this study was discussed. In Chapter 3, the research methodology of the study will be addressed.

Table of content

3 The Research Methodology and Process

3.1 Introduction

In Chapter 2 the literature with regard to the context of this study was discussed. The conceptual framework developed for this study, was also presented in Chapter 2. Chapter 3 will be dedicated to the research methodology and the research process followed. Research strategies, methods of data collection and data analysis, methods of ensuring authenticity and trustworthiness, as well as ethical considerations will be discussed. The description of the data collection and data analysis processes will also be enhanced by means of figures and tables.

3.2 The nature of the study

As the affective experiences of participants within an online learning environment were explored and interpreted, the research design had to be exploratory, descriptive and contextual in nature.

3.2.1 Exploratory nature of the study

An exploratory study was conducted to investigate the phenomenon of affective experiences in an online environment, to identify or discover important categories of meaning and to make suggestions for further research (Marshall & Rossman 1999:33).

Central concepts identified from data obtained during the literature searches provided the basis for the interpretations.

3.2.2 Descriptive nature of the study

The research was descriptive as it described and documented not only the data collection process, but also the phenomenon that was studied. Data obtained from focus group interviews provided precise information on the phenomenon.

3.2.3 Contextual nature of the study

The study was contextual because it was based on the experiences of participants within a specific environment. Participants attached specific meanings to these experiences within this context (Morse 1994:106). This study focused on the feelings of participants – feelings that were identified when they experienced an online learning event. This event will be explained in more detail.

3.3 The context of the study

3.3.1 The module

The basis for the study was the fifth module of a two-year tutored master's degree in computer-assisted education. This module, with its focus on e-learning, was presented entirely online for a period of six weeks, from 18 July 2002 till 29 August 2002. The study participants, who registered for this specific module, were all adults who were combining part-time study with a full-time job. The module was presented in the style of the internationally acclaimed reality television game show, *Survivor*. However, as the module was presented entirely online, the game was played in cyberspace; and as the learning experiences of participants were based on surfing the Web, the game was called *CyberSurfiver.*

Before the module commenced, 'tribes' or groups were formed by requesting all participants to stand in a single line and by numbering them from one to six sequentially. All the participants called number one formed a group; all the

participants called number two formed a group, and so forth, until six groups were formed. Participants were at different levels of computer and Web literacy.

The module with its focus on e-learning lent itself to inclusion in the research study. It was suitable for the purpose of conducting research on the affective experiences of participants in an e-learning event because *CyberSurfiver* took place in the faceless nature of the e-learning environment. Not only was there supposed to be no face-to-face contact between lecturer and student, but also between students who were registered for the module. Face-to-face contact with the lecturer was restricted to the introductory contact session at the start of the module and a reflective session after completion of the module. Participants were also discouraged to call each other by telephone or to meet personally.

Thus, with the exception of the initial face-to-face introductory meeting and the final debriefing or 'tribal council' session, the entire module was presented over the Internet. As the module was presented over the Internet, the medium of communication was the Web. The Web was used extensively as a communication tool, a virtual meeting-place, a venue for tests and assessment, a drop-off space for assignments and completed tasks, as well as a resource of information. Using the Web as the medium of contact between the facilitator and the learners made learning experiences decidedly different from those in the traditional face-to-face environment of teaching and learning.

In the e-learning environment, participants had to interact and communicate mainly by means of e-mail, Internet groups, and the online learning platform *WebCT*. This meant that every participant had access to all the e-mails, those sent by participatory group (tribe) members, as well as members from rival tribal groups. Participants could also communicate synchronously by means of the Internet-based synchronous tool[12] *Yahoo! Messenger*. Some participants had a desktop computer at home, but others could access the *Internet* only from their places of work.

3.3.2 Online communication

All the interactions between tribal members, as well as all the interactions between tribal members and the facilitator of the course, took place by means of a number of

[12] A site on the Internet where users can have discussions in real time

pre-selected Web-based communication tools. The lecturer purposively selected the following Web-based tools for communication:

- *Yahoo!* groups;
- *Yahoo!* Messenger;
- *NetMeeting;*
- *WebCT*; and
- *Interwise*.

These tools were selected in order to provide learners with a wide range of experiences regarding a variety of applications. By using these tools, learners sampled what the Internet had to offer in terms of synchronous and asynchronous communication. Furthermore, usage of these tools provided them with the opportunities to evaluate the different functionalities that were offered by both expensive commercial learning management systems and those applications that were available on the Internet free of charge.

During the first week of the module, a communication group in *Yahoo! Groups* called *E-learn* was established. This group served as sole medium of communication until the second week, when other tools were introduced and integrated on a regular basis. It soon became clear that *Yahoo! Groups* was going to be the more formal medium of communication, particularly when the message was meant for the entire group. On the other hand, *Yahoo! Messenger* proved to be popular for interpersonal contact purposes, even across tribal boundaries.

Figure 3.1 illustrates a communication event between the lecturer of the module and the participants (students). A screen dump[13] was made of the information that was e-mailed by the lecturer to the participants. Participants had to read through its contents, and had to access the information online in order to prepare for a test that had to be taken online.

[13] Copying of information stored inside the computer (image of screen) onto page

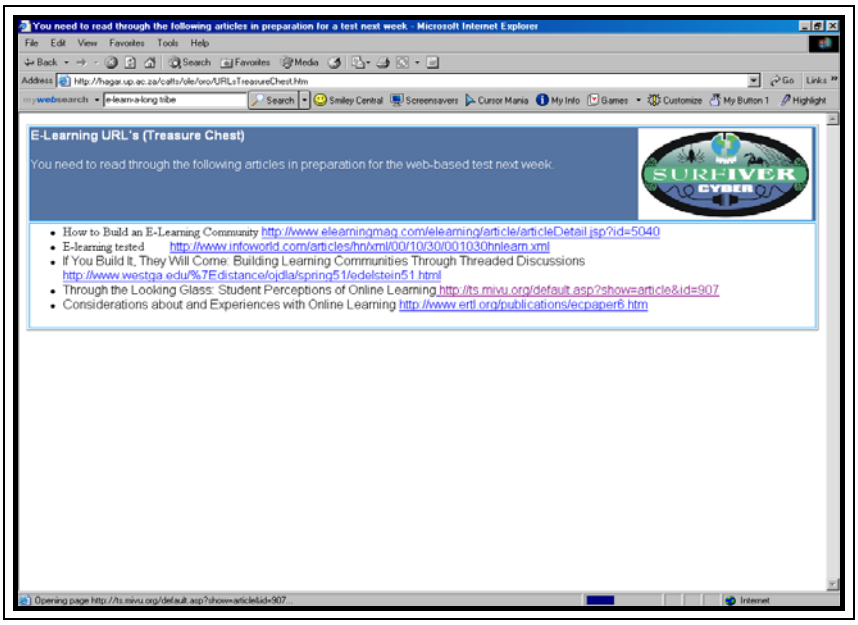


Figure 3.1: Online communication between facilitator and participants

3.3.3 The rule on communication

During the course of the game, all the interactions had to take place on 'Cyber Island' (online), and interpersonal telephone calls and any form of face-to-face contact between learners were strongly discouraged. The facilitator of the module (game) motivated this decision as follows:

> *'The idea was to let the guys have an e-learning experience that was as authentic as possible, and in a real distance education environment they wouldn't have had f2f contact with each other (due to geographical distances). The idea was merely to give them no other choice but to optimally make use of the tools offered by the Web, rather than to opt for the easy way out (to see and phone each other). The idea was that they would experience first hand how the limitations and possibilities of the Internet affected communication.' (Van Ryneveld* vanryneveld@TUT.AC.ZA *2004)]*

Despite this ruling on communication, learners who experienced technical difficulties, for example, in transferring their website files by means of File Transfer Protocol (FTP) to the server on campus, did meet face-to-face with more experienced learners on a number of Saturday mornings in order to be able to realise deadlines and milestones. This became known after participants completed the course. Thus, learners

occasionally did have face-to-face contact, and some level of interpersonal discussions did take place behind the scenes, even though these practices were not officially allowed. Although online communication was not the only type of communication that occurred, it was fair to say that the majority of the interactions did take place online.

3.3.4 Assignments

Participants had to access the Internet for instructions from the lecturer, which were posted on a weekly basis. These instructions included completion of certain individual and collaborative or tribal assignments.

For the tribal assignments, learners had to collaborate and negotiate online, using the Web-based mediums available to them. All assignments also had to be submitted electronically. A screen dump made from the site of the module illustrated how the participants had to access information to perform assignments. Refer to Figure 3.2.

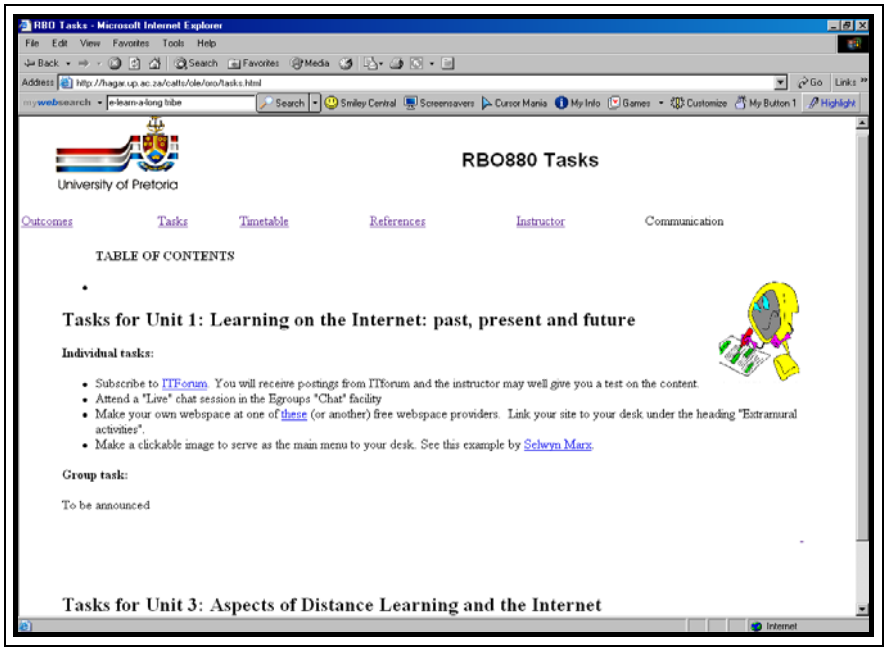


Figure 3.2: Individual tasks in unit 1 of the module

As with the television show *Survivor*, immunity and reward challenges were posted regularly. At the end of the week's activities, tribe members had to vote off a team member on the basis of pre-set criteria. Evicted members joined each other in a separate tribe. This separate tribe had to complete all the assignments as stipulated for the primary tribes. Unfortunately, once a member was voted out of a tribe, s/he

was not eligible for the final grand prize. The grand prize was a weekend at a self-catering holiday destination for the sole *CyberSurfiver* and her/his family. An abbreviated assignment schedule for the participants during the six-week module is presented in Table 3.1.

Table 3.1: Abbreviated assignment schedule for participants during the six-week module (Adendorff 2004:110)

Week	Assignments
18 - 24 July 2002	Tribal assignment 1 Individual assignment 1 (with tribal involvement) Individual assignment 2
25 - 31 July 2002	Tribal assignment 2 Individual assignment 3 Individual assignment 4 Collaborative behaviour
1 - 7 August 2002	Tribal assignment 2 (continued) Individual assignment 5 Individual assignment 6 (with tribal involvement and support) Individual assignment 7
8 -14 August 2002	Tribal assignment 3 Individual assignment 8 Individual assignment 9 Collaborative behaviour
15 - 21 August 2002	Tribal assignment 4 Individual assignment 10 Individual assignment 11 Collaborative behaviour
22 - 28 August 2002	Tribal assignment 5 Individual assignment 12 Individual assignment 13

A more detailed explanation of how the game was organised is provided as Annexure D. Linda van Ryneveld, the lecturer of the *CyberSurfiver* module, compiled the explanation.

3.4 The research question and sub-questions

This study was aimed at answering the following research question: *What are the affective experiences of students in an online learning environment?* In order to answer the research question, specific research objectives were set. These research objectives were converted into sub-questions as follows:

- How did online students cope in the online learning environment?
- Why did online students ask for help?
- Why did online students offer help?
- What were the principal causes of motivation and frustration?

- What was the nature of the cooperation between students (the nature of the peer support)?
- How (and to what extent) did the affective experiences of students contribute towards the successful completion of an online course?
- What could make a student drop off a course regardless of volition?

3.5 The role of the researcher and others involved in this study

A collaborative research project was launched by a team of three researchers who each investigated an independent topic but with the involvement of one specific group of participants. The participants formed the populations of the studies of two of the researchers, while one researcher focused specifically on the role of the lecturer.

Adendorff's (2004) study specifically addressed the role of the lecturer who facilitated the online module. Van Ryneveld (2004), who facilitated the module, researched the role of games in adult learning. For the purposes of this study, the *affective* experiences (feelings) of participants during an online course were investigated. Although the group of participants involved in the online module comprised the populations of two of the studies, each researcher worked independently. The researchers, however, did involve each other for member checking purposes (Holloway & Wheeler 2002:257, 258).

Table 3.2 indicates the roles and responsibilities of the researchers involved in the collaborative research project. The first column lists the names of the researchers in alphabetical order according to surname. The second and third columns indicate the roles and responsibilities of the researchers within the project.

Table 3.2: Roles and responsibilities of the researchers within *The Collaborative Research Project*

Researcher	Role	Responsibility
Debbie Adendorff 	Researcher Observer	Investigated the roles and competencies of an online facilitator.
 **Salomé Meyer**	Researcher Observer	Studied the affective experiences of students in an online learning environment.
Linda van Ryneveld 	Lecturer/ Facilitator	Facilitated the online module.
	Researcher	Studied the interaction in an adult online learning community.

3.5.1 People who assisted in this study

According to Holloway and Wheeler (2002:115), the researcher and the interviewer can be one and the same person. They state that the facilitator becomes the interviewer. In this research, the roles and responsibilities of the facilitator, interviewer, researcher, observer, and coder were separated or shared by people. Dr Sonja Grobler served as independent interviewer and co-coder, while Dr Sandra van Wyk served as independent analyst and verifier of coded data. A third independent person took field notes during interviews to allow the interviewer to concentrate on the responses of participants and to prompt appropriately. This separation of roles was done in order to reduce researcher bias, and increase the reliability of the data collection process.

I co-coordinated the data collection procedure and data analysis. The fact that different venues were used for the focus group interviews did not seem to pose a problem. During both interview sessions, a Dictaphone was placed in such a position that the voices of all the participants and the interviewer could be clearly recorded, and all data were captured. I introduced the participants, the interviewer and the field worker, requested permission for the recordings to be done, and ensured that written informed consent was obtained from all participants prior to the commencement of data collection. The informed consent document is attached as Annexure A.

3.5.2 The role of the interviewer

An independent person was employed to conduct the focus group interviews and, specifically, to focus the contents discussed during the interviews and prevent dishonest responses from participants. The interviewer had to create a supportive environment, ask focused questions, and encourage discussions and expressions of differing opinions (Marshall & Rossman 1999:114). For these reasons, and to manage potential conflict situations, it was thought necessary to employ a qualified person to conduct the focus group interviews.

The interviewer employed was qualified to facilitate stress management, conflict management and cultural sensitivity. She was skilled in stimulating discussions and controlling groups, and she was flexible and open minded. The interviewer was a psychiatric nurse specialist and an expert in qualitative research.

These skills of the interviewer were crucial to obtaining useful data. The interviewer introduced the topic and confirmed the reasons for conducting the interview. An atmosphere of trust, acceptance, cooperation and rapport was created (Neuman 1997:253). This was followed by an invitation to respond spontaneously and in an informal manner. The interviewer remained neutral with respect to both verbal and non-verbal behaviour. However, the interviewer knew when to probe and was aware that participants might become uncomfortable, and would then intercede (Morse 1994:231, 232).

Breakwell, Hammond and Five-Shaw (1995:281) refer to the art of interviewing as process facilitation and state that the skills of the interviewer are fundamental to the effectiveness of the focus group interview. The interviewer in this study succeeded in focusing the participants on the research topic throughout the interviews. The result was a considerable amount of useful data that could be analysed to obtain answers to the research question and to achieve the objectives of the study.

3.6 Graphic presentation explaining roles and interactions

A graphic presentation has been designed to attempt an explanation of the roles of the researchers and the interactions that took place between participants, participants and the lecturer, as well as between researchers, and researchers and participants. This graphic presentation is depicted as Figure 3.3.

All the interactions took place within the e-learning environment. Within this environment, indicated by a rounded rectangle, the participants were the primary focal group. The participants are indicated by a rectangle containing drawings of stick figures. Each of the three researchers involved in the collaborative research project is indicated by a triangle. The interaction between researchers, as they shared information, gave support and did member checking, is illustrated by means of the overlapping of triangles.

The triangle that represents Van Ryneveld, who facilitated the module, overlaps more with the rectangle of the participants than do the triangles representing Adendorff or Meyer, as Van Ryneveld was more involved with the participants. Adendorff's triangle overlaps more with Van Ryneveld's than Meyer's, because Adendorff's research focused on the facilitator, while Meyer's research focused on the participants. The

triangles of Adendorff and Meyer overlap slightly, indicating the member checking and mutual support.

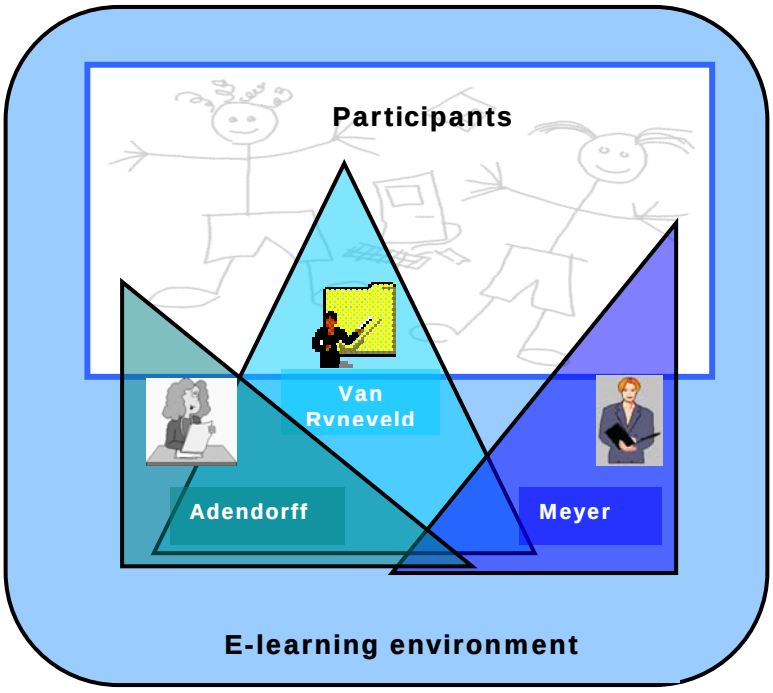


Figure 3.3: Graphic presentation explaining the roles of the researchers

3.7 Qualitative approach

The qualitative approach was chosen for this study in order to explore and describe the affective experiences of students in an online learning environment. The qualitative approach to this research, being contextual in nature, was used to interpret the affective experiences of participants.

The purpose of conducting an interpretive study is to deepen and extend knowledge of why social life is perceived and experienced the way it is; social life, in the context of this study, being the six weeks of interacting with other human beings in the same situation with the same demands, but also different demands to a certain extent (Carr & Kemmis 1986). By conducting an interpretive study, participants could be observed in the situation in which they expressed themselves and in which they gave meaning to what they had experienced.

A qualitative research approach was adopted because this research aimed at interpreting the phenomenon under study in terms of the meanings that the participants brought to it (Greenhalgh & Taylor 1997:740-743). Maykunt and Morehouse (1994:43) describe qualitative research as being exploratory and descriptive in focus, and purposive in sampling with the emphasis on people as instruments. Qualitative research is a form of social inquiry that focuses on the way people interpret the socially constructed nature of reality and make sense of their experiences and the world they live in (Denzin & Lincoln 2000:8; Holloway & Wheeler 2002:3). According to Mason (1997:4) in Creswell (1998:15), qualitative research is based on methods of data generation that are flexible and sensitive to the social context in which data is produced.

It was decided to specifically follow a qualitative research method, as such a method involves a collection or a variety of empirical material, such as personal experiences that describe routine and problematic moments and meaning in individuals' lives. This viewpoint is endorsed by Brink (1996:119) who explains that qualitative research is concerned with how people make sense of their lives. Another reason why a qualitative approach was chosen for this study is that such an approach is usually used to explore areas about which little is known and to gain information about phenomena, such as emotions and thought processes, that are difficult to extract through mere conventional research methods, as indicated by Strauss and Corbin (1998:11). Neuman (1997:420) also states that data obtained through qualitative research is rich in detail and capable of showing the complex processes of social life. All of the aforementioned characteristics of a qualitative study convinced me that such an approach would provide the proper framework for this research.

The characteristics of qualitative research, as explained by Holloway and Wheeler (2002:10), were used as a measure against which the characteristics mentioned by other authors could be compared. The researcher's[14] interpretation of how this study measured up to these characteristics is shown in the last column of Table 3.3. Thus, Table 3.3 represents the characteristics of qualitative research as described by various authors and as applied to this research study.

The reasons for using a qualitative research design for this study became clear when the characteristics of qualitative research, as explained in Table 3.3, were compared. From the table, it was apparent that the characteristics distinguishing qualitative

[14] Authorial representation is included to convey the position of the researcher (Creswell 1998:172).

research, as described by a number of published and skilled researchers, did apply to this study. Table 3.3 provides evidence supporting the qualitative approach to this research.

Table 3.3: Characteristics of qualitative research

Characteristics described by Holloway and Wheeler (2002:10)	Creswell (1998)	Merriam (1998)	Bogdan and Biklen (1992)	This study
The data has primacy; the theoretical framework is not predetermined, but is derived directly from the data.	✓	✓	✓	✓
Qualitative research is context-bound and researchers must be context sensitive.				✓
Researchers immerse themselves in the natural setting of the people whose thoughts they wish to explore.	✓	✓	✓	✓
Qualitative researchers focus on the ***emic*** *perspective - the views of the people involved in the research and their perceptions, meanings and interpretations.*	✓	✓	✓	✓
Qualitative researchers use 'thick description'; they describe, analyse and interpret.	✓			✓
The relationship between the researcher and the research subjects is a close relationship, and is based on a position of equality.				✓
Data collection and data analysis generally proceed together, and they interact in some forms of qualitative research.	✓	✓	✓	✓

3.8 Research design

As this study explored a phenomenon, namely the affective experiences of students in an online learning environment, it could be described as a *phenomenological study*. The *qualitative* approach to research was used to interpret the phenomenon. The context, in which this research was conducted, was bound, as the study investigated the experiences of a specific group of students during a specific online event (the *CyberSurfiver* module). This study focused on a group of people who had something in common.

A case study was chosen as a design for this study because it reflected *particularistic*, *descriptive* and *heuristic* characteristics. This study was particularistic because it focused on a particular event. It was descriptive, as rich and thick descriptions were

extracted from the data gathered. It had heuristic qualities, as the meanings that students attached to their experiences were uncovered (Creswell 1998:172; Merriam 1998:27.) On the one hand, the case study could be related to the online culture but, on the other hand, the study aimed at interpreting meaning attached to experiences within the online culture. For this reason, the study could be regarded as having a *hybrid design*. A schematic representation of the research design is presented in Figure 3.4.

This study had features of both an *ethnographic study* and a *hermeneutic study*. By *interpreting the meaning* (hermeneutics) that participants attached to their experiences in an online environment, an *online culture* (ethnography) was described. This research had the contextual nature, as well as the reflective character of an ethnographic study. This study specifically gave priority to the case study design but, by employing aspects of hermeneutics and ethnography, an attempt was made to obtain more complete research results. These aspects also assisted in understanding the research.

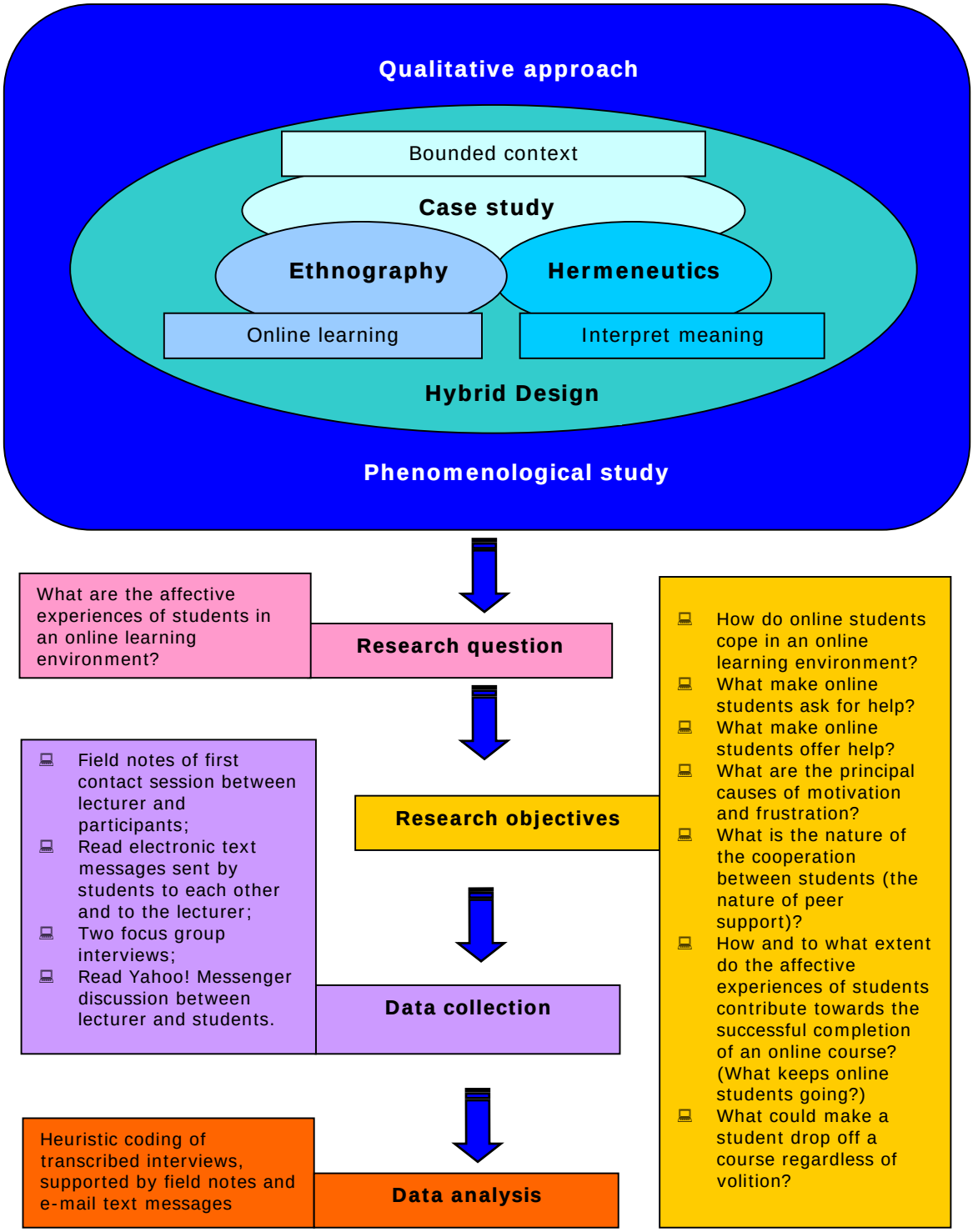


Figure 3.4: Schematic representation of research design

The case studied was a single case, which was specifically chosen for its topical relevance (Yin 1992:34). The case study was executed by investigating the particular phenomenon and the context within which it occurred (Yin 1992:31). Ethnographic aspects were employed in this study, as the study involved an ongoing attempt to place significant encounters, events, and understanding of the feelings of participants into a fuller and more meaningful context. The experiences of the participants were interpreted as meaningful, and their interactions were generated from and informed by the meaningfulness of their experiences (Tedlock 2000:455). Anthropological concepts, such as myths, stories and rituals, were not present in this study (Creswell 1998; Wolcott 1994). Although I did not interact with the participants while they were actively doing the module, I penetrated into their environment by being logged onto their online communications for a certain period. This was indicative of how I was an observer of participation rather than an observing participant (Tedlock 2000:265).

As a person's experience of the world is connected with language, it was thought appropriate to use the electronic communication sources, mentioned in Section 3.11, to attempt to understand the meaning making of the participants with regard to their experiences during the *CyberSurfiver* game. Hermeneutics was used for this purpose.

However, data was purposively interpreted, and did not have an end product. Not their behaviour, but the words (language) that participants used to describe their feelings were interpreted. Similar to an ethnographic study, the emic perspective (from the viewpoint of the participants), as well as the etic perspective (from the researcher's point of view), was considered (Morse 1994:162). Also similar to an ethnographic study, this study focused on a group of people who had something in common, namely the *CyberSurfiver* module (Morse 1994:161). An effort was made to learn about and understand a human group (Morse 1994:161, citing Agar 1980). In this instance, the group was the participants of this study who were involved in the *CyberSurfiver* module. An attempt was also made not only to describe the behaviour of the participants, but to understand and interpret their experiences under certain circumstances (Morse 1994:162).

3.9 Research paradigm

This study can be seen as falling within the *constructivist-hermeneutic-interpretivist-qualitative paradigm*. The educational paradigms of Reeves (1996), as explained on the website *Learning with software: Pedagogies and practices project* (Learning 1996),

are employed to explain this paradigm. Aspects of the *constructivist-hermeneutic-interpretivist-qualitative paradigm* and their application to this study are explained as follows:

- The **constructivist** viewpoint represents the belief that humans individually and collectively construct reality. The participants in this study had to complete individual and cooperative assignments.
- The **hermeneutic** aspect attempts to expose the meaning that human beings give to words. The data for this study were obtained by means of focus group interviews and were transcribed verbatim.
- The **interpretivist** aspect emphasises the researcher's interpretation of the meanings given to experiences by participants. The transcribed data were coded in an attempt to interpret the affective experiences of participants.
- The **qualitative** aspect emphasises the fact that human beings are the primary instruments of the research. In this study, the experiences of the participants as verbalised by the participants were investigated.

3.10 Sampling

A group of participants were selected because the expectation was that they would have something to say about the experiences that they shared in an online learning environment. Their participation in the study were considered from the following three perspectives that, according to Cohen *et al.* (2000:46), should not be seen in isolation:

- *Experiences of place;*
- *Experiences of events and time; and*
- *Ways of talking about experiences*.

Events, incidents and experiences are typically the objects of purposeful sampling in qualitative research. As this was a qualitative study, a purposive rather than a random sampling method was employed (Maykunt & Morehouse 1994:56).

Participants in an online module focussing on e-learning were decided on as the population for this study owing to the learning environment they proceeded in. The population therefore consisted of a complete group of participants who was registered for a master's degree in computer-integrated education (Burns & Grove 1997:293,295). It was purposively decided to use this group of participants, because

they would be *forced* to make meaning of their learning experience/s (Cohen *et al.* 2000:50). The challenging nature of the module made it specifically interesting. Participants shared characteristics in the sense that they did the same module and would be able to respond to the research question (Marshall & Rossman 1999:15). The participants all experienced learning events at the same time, and they had to communicate in a specified and prescribed manner.

No computations or power analyses were done to determine the minimum numbers for sampling; therefore, the adequacy of the sample size was relative, and the intended purpose for using the sample was judged (Sandelowski 1995:371-8). Fifteen of the 24 students who started out with the module, completed the module that ended on 29 August 2002.

The sample group chose themselves to a certain extent, as all participants were invited to participate in the focus group interviews. Of the fifteen *CyberSurfiver* participants who completed the module, thirteen participants volunteered to participate in the first focus group interview and twelve participants volunteered to participate in the second focus group discussion. This is indicative that they experienced a need to talk about their feelings and experiences.

Eight participants of the first as well as the second focus group interview were female. All participants were employed in an educational setting. The profile of participants with regard to age and gender is provided. The age and gender profile of the participants who participated in the first focus group interview is indicated in Table 3.4.

Table 3.4: Profile of participants of the first focus group interview with regard to gender and age

Age	Female	Male
30+	4	4
40+	3	0
50+	2	0

The age and gender profile of the participants who participated in the second focus group interview is indicated in Table 3.5.

Table 3.5: Profile of participants of the second focus group interview with regard to gender and age

Age	Female	Male
30+	2	4
40+	4	0
50+	2	0

3.11 Data collection

In qualitative research, four basic types of data collection methods are used to gather information, namely: observations, interviews, documents, and audiovisual materials (Creswell 1998:120; Fastrak Consulting 1999).

As mentioned in Section 3.1, the module started on 18 July 2002. However, I was already present during the introductory session when the participants were briefed on the nature of the module. Linda van Ryneveld, the lecturer, informed the participants that I was one of three PhD candidates who were conducting research relating to the online learning environment. Participants were informed that I would be making observations, as I was conducting research about affective issues in an online learning environment. Participants were also informed that I would not interact with them specifically, but that I would act as an observer (a 'fly on the wall') and would have access to all their online communication – communication with the lecturer, as well as one another. At this stage, the participants had only provided verbal consent to participate in the study.

During the six-week module, the interactions between the participants were observed by reading e-mails sent by the participants to each other and the lecturer. Contact with the participants was only made after the module was completed. An optional focus group interview was arranged for 4 March 2003 with the intention of inviting participants to discuss the feelings that they experienced during their involvement in the online module.

3.11.1 Video recordings

First contact session

A video recording was made of the first contact session. This was done as a backup because I was not yet sure of the type of data that would be needed. The layout of the room lent itself toward getting all the students into one shot, and therefore it was possible to put the video camera in a stationary position. This allowed for the taking of field notes. Field notes were also taken due to the fact that there was some uncertainty about the type of data needed. Taking field notes was seen as an opportunity to collect data that could be used for the study.

Second contact session

I attended the second contact session as an observer. A videotape was also taken of the second and final contact session between the lecturer and the participants. Unfortunately, the setting was not ideal as the room was oblong and the seats were placed in a wide semi-circle. The video camera had to be moved around to record the proceedings. However, the video recording was not used, as it was not needed. By that time, it was clear to me what type of data was needed. The recording was done to accommodate the other two researchers of the collaborative research project, should they want to use it. It was possible to make the recording, as I attended the session as an observer.

3.11.2 Field notes on first contact session

By observing, it was possible to obtain first-hand data about the phenomenon under study. The data for this study was collected by taking field notes during observation (Cantrell 2001). Field notes can be described as detailed notes containing observable actions. At the same time, personal notes were taken. Everything seen and heard during this session was written down in a chronological manner (Holloway & Wheeler 2002:285). I tried to be as neutral as possible (Holloway & Wheeler 2002:87), but it became obvious that the participants were very aware of the fact that notes were taken on their non-verbal and verbal responses to the information provided by the lecturer. This was experienced as the negative side of taking field notes.

I was even of the opinion that the behaviour of the participants was artificial to a certain extent. This could have been the case because people do tend to behave differently when they know that they are observed. One could argue that people get used to the observer and ignore the person after a while, but the observer has no means to detect this discrepancy (Aumueller 2002). The artificial behaviour is especially evident when people are aware that they are being scrutinised as a group (Kliemt 1990:72-95).

However, on the positive side of this encounter, I was convinced that this research would produce results, because the participants were observed as feeling overwhelmed, unsure, threatened, apprehensive, and even defensive. Comments made and questions asked by the participants betrayed their level of competency. It became evident that some kept silent because they lacked the necessary computer skills for the module. The behaviour of the participants at this first session indicated that they would experience their share of emotions/feelings in the course of events.

3.11.3 Asynchronous electronic text messages

Yahoo! Groups offers a group service that allows facilitators and learners alike to send public messages to others in the group. The participants in this study primarily communicated by posting *e-mail text messages* through a *Yahoo!* group specifically established for this course. Everyone registered for the group had access to all e-mail that was sent by any other member of the group, including the lecturer. Hundreds of e-mail text messages were sent during the course of the module. These messages could be accessed on the Web on an electronic bulletin board[15]; however, group members also had the option to receive the messages in an e-mail format (as if on a listserv[16]). The *WebCT* learning management system was introduced at a particular point during the module. A number of learners used the *WebCT* e-mail facility to communicate. Most of the communication in this module took place by e-mail.

Throughout the six weeks that the participants actively partook in the module, they were only observed and no interaction occurred between the participants and the observer. Observation was done in an effort to enhance understanding of the feelings that participants experienced and to confirm the trustworthiness of the study. The text messages were analysed but not coded, and used as confirmation of feelings

[15] A computer network facility that allows any user to leave messages that can be read by any other user

[16] An Internet service that provides e-mailing to subscribers of the service

expressed during focus group interviews. I was online most of the time during the day for the six-week period, and was convinced that the focus group interviews would produce rich data. The data obtained exceeded all expectations, as it provided thick descriptions of the experiences of the participants, and allowed for a myriad of inferences to be made.

3.11.4 Synchronous electronic text messages

Yahoo! Messenger allowed the participants to send instant messages to one another and to the facilitator when they were online at the same time. At times offline (asynchronous) messages were also sent and received.

3.11.5 Focus group interviews

Focus group discussions are in-depth interviews whereby a limited number of interacting individuals with common characteristics relevant to the study topic are used to elicit information that could not be obtained through other methods of data collection (Chamane & Kortenbout 1996:23-5). Focus group interviews are used as a self-contained method of data collection (De Vos *et al*. 2002:207).

In this study, two focus group interviews were used as the principal method of data collection. The main purpose of the focus group interviews was to collect data about the personal experiences (feelings) of participants. However, the interviews served a second purpose. In combination with field notes, they assisted in understanding the experiences of participants.

Interviews are regarded as opportunities to gather descriptive data from participants (including verbatim verbal accounts), and to access what cannot be observed. The focus group technique therefore provides rich data at a reasonable cost. According to Morse (1994:226), this technique with '… *proper guidance from the interviewer can describe rich detail of complex experiences and the reasoning behind … actions, beliefs, perceptions, and attitudes*'. It is also called '*a walk in the head*' (Cantrell 2001).

The focus group technique has several advantages. In this study, it was used because the assumptions were made that interviewees would be less hesitant to provide

information in a group than in a one-to-one situation and that they would cooperate with each other for a limited time. Further advantages of conducting focus group interviews are that they possibly yield the best information because of the interaction between participants (Creswell 1998:124). They also allow for flexibility because the interviewer can prompt participants and encourage them to explore their thoughts (Holloway & Wheeler 2002:93). However, the so-called 'group effect' has a disadvantage. Participants may provide conformed answers, as the perspective of individuals may be influenced by the opinion of the group (Holloway & Wheeler 2002:118; Kooker, Shoultz & Trotter 1998:283).

For this study, an interview protocol was designed to ensure obtaining answers to the research question. The interview protocol consisted of open-ended questions that were less structured than closed questions (Holloway & Wheeler 2002:80). The sub-questions for the interviews were based on the objectives for this study. These sub-questions were as follows:

- How do online students cope in an online learning environment?
- Why do online students ask for help?
- Why do online students offer help?
- What are the principal causes of motivation and frustration;
- What is the nature of the cooperation between students (the nature of peer support)?
- How (and to what extent) do affective experiences of students contribute towards the successful completion of an online course?
- What could make a student drop off a course regardless of volition?

The interviews were however not completely unstructured, as questions were formulated ahead of time, and based on the definition of the problem (Cantrell 2001). Questions asked during the focus group interviews are set out in Table 3.6. The interviews were audio taped and transcribed.

Table 3.6: Questions asked during focus group interviews

Interview 1	Question 1	How did you experience this module?
	Question 2	Did all of you complete the module?
	Question 3	What technical knowledge do you need before you can start with such a course?
	Question 4	How does online communication differ from face-to-face communication? In what sense are they alike?
	Question 5	Which skills do you need to do this course?
Interview 2	Question 1	How did you cope in the online environment?
	Question 2	What kind of support did you get?
	Question 3	What made you stay?
	Question 4	When did people give up?
	Question 5	How did you feel about the online communication rules?

Prior to the first focus group interview, informed consent was obtained from the participants. Participants, who attended the second interview, and not the first, were given the opportunity to give consent in written format before the interview commenced. These sessions were conducted in 4 and 11 March 2003.

Regarding both sessions, an independent interviewer conducted the interview and an independent field worker took field notes. The independent interviewer was requested to conduct the interviews in an effort to enhance the objectivity of the research (Morse 1994:227). Field notes were taken by means of spontaneous observation (Burns & Grove 1997:352; Cantrell 2001). The purpose of the field notes was to assist in interpreting experiences of participants and therefore to enrich the data analysis (Burns & Grove 1997:359).

The expectation was that emotional responses would be provoked during these interviews. The interviewer was employed because of her skill in conducting interviews and managing conflict. Prior to conducting the interviews, three meetings were held with the interviewer to discuss the nature of the study and to relate information on online learning issues, allowing understanding of the contributions of participants and enabling effective probing during sessions (Morse 1994:229).

Another important reason for using an independent interviewer was to prevent researcher bias. I did the same master's programme in 1999, and might have had certain opinions and presumptions that could influence the course of the interview, and contaminate the information received. The interviewer and the field worker were introduced to the interviewees before the commencement of each interview, but I

stayed away while the interview was conducted and returned only to thank all involved.

3.12 Different sources of data

The different sources of data are summarised in Table 3.7. A short clarification of each source is provided, as well as an explanation of its advantages and disadvantages for this study.

Table 3.7: Sources of data; their advantages and disadvantages

Sources of data	Clarification	Advantages	Disadvantages
Field notes on first contact session	The module was introduced during a meeting that was videotaped. The main purpose of the meeting was two-fold: To provide information on the nature of the module, and to introduce the researchers and the participants to each other.	The verbal and non-verbal behaviour of participants, which indicated their emotional feelings, could be observed in a direct manner.	The behaviour of the participants might have been artificial to some extent, as the participants were aware that the researcher was observing and that she was taking field notes.
Electronic text messages (including e-mail messages)	The participants used mainly electronic messages to communicate with each other and the lecturer. The *WebCT* learning management system was introduced at some point during the module. A number of learners used the *WebCT* e-mail facility to communicate, mainly with the facilitator.	The researcher could keep track of how participants felt emotionally by reading the electronic messages, without manipulating the data.	It was extremely time consuming to read through the e-mails every day.
Focus group interviews and transcripts	Two focus group interviews were held in March 2003. These were transcribed and the data obtained was analysed into different categories. These categories will be discussed in the next chapters.	The participants reflected on their experiences and verbalised their feelings. Concentrated amounts of data on the precise topic of this study were obtained.	The focus group interviews for this study were less cost effective, as the independent interviewer and the field worker had to be paid. Further costs incurred were the remuneration of the person who transcribed the data, and expenses for food and drinks after both interviews.

The different methods of data collection employed in this study, namely observations, field notes, electronic text messages and focus group interviews, yielded a variety of data that could be analysed.

3.13 Data analysis

This study had its origins in my reflections as a nurse educator and on personal experiences as a student in an online environment, thus stressing the phenomenological nature of the study. The next step with regard to data collection and analysis was to start a dialogue with the participants in the study (by means of focus group interviews) to obtain their experiential descriptions of the topic, which were tape recorded and transcribed. The transcribed dialogues were then examined and inspected, and descriptive words were highlighted, thus searching for idiomatic phrases that would add to an understanding of their experiences. Furthermore, experiential descriptions in the literature were sought, which would complement the data imparted by the participants about their experiences. Synthesising these sources by means of the process of thematic analysis (coding) provided for insight into and comprehension of the meanings of the participants' experiences.

Although software programmes for the analysis of qualitative research were available, their acquisition was regarded as unnecessary, as either handwritten notes or the MS Excel software programme could be used for the data analysis. It was decided to do the coding by hand. The codes were written in the margins of the transcript pages. As only two focus group interview transcripts had to be analysed, this method seemed to work well. The data were analysed by both myself and the focus group interviewer who was a skilled qualitative researcher. A second independent analyst verified the interpretation of the focus group transcriptions.

The data was analysed with the intention to ferret out the essence of the phenomenon (Merriam 1998:158). This was done by searching for themes in the text, clustering them, and by creating categories to search for the meaning of the words that the participants used to communicate. By questioning the participants' statements, I tried to understand behaviour and to interpret meaning (Merriam 1998:193).

The challenge was to capture the recurring pattern that cut across the preponderance of the data (Merriam 1998:179). Three categories were identified. They were curative factors, process of development, and inhibiting factors. A unit of data was identified by means of its heuristic quality as well as its ability to stand on its own (Merriam 1998:180). The data became saturated during the early part of the coding of the second focus group transcription (Morse 1994:106). This served as verification

that the two focus group interviews were sufficient to provide thick and rich information (Cohen *et al.* 2000:72-3).

The process of interpretation was an important part of the data analysis. This process was guided by employing the *hermeneutic cycle*; a metaphor that explains the process of inquiry (Cohen *et al.* 2000:72-3). Hermeneutics means 'the science of interpretation'. Hermeneutics (from Greek *'Ηερμηνευτικος*[17], expert in interpretation, from *'Ηερμηνευειν,* to interpret) is the theory and practice of the interpretation of texts (Collins Concise Dictionary 2001:681). The *hermeneutic cycle* is the process by which interpreters return to a text, and derive an interpretation, perhaps a new interpretation every time for every interpreter. An interpreter reads the transcripts to form an impression of the whole. S/he then goes back and looks at the pieces (units) in order to analyse them. The pieces are then related to the whole, and the whole to the pieces, and this process continues back and forth, from pieces to whole to pieces to whole (Cohen *et al.* 2000:70-72). This cyclic process was applied to this study.

The *hermeneutic cycle,* by definition a closed loop, was made famous by Heidegger. It has interactive and interpretive qualities (Conroy 2003). Figure 3.5 is a schematic interpretation of the *hermeneutic cycle* as provided by Ross (2002).

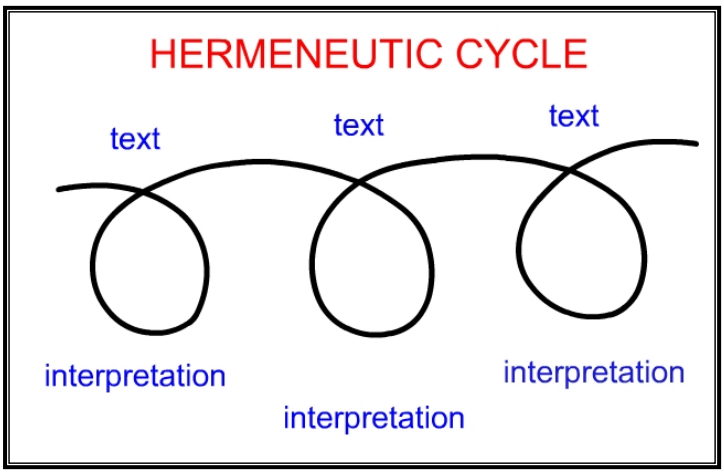


Figure 3.5: Hermeneutic cycle (Ross 2002)

The interpretive and partly ethnographic nature of the study emphasised the focus of the data analysis as not being the patterned behaviour and action of participants, but

[17] From *Little Greek 101: Learning New Testament Greek* available at http://www.ibiblio.org/koine/greek/lessons/alphabet.html.

rather being the experiences of participants. The limited ethnographic characteristics of the research design affirmed the coding and linking of data obtained from the transcripts and the electronic means of interaction between participants. Synthesis occurred when the data was saturated. Morse (1994:37) emphasises that ethnographic work is often not developed beyond the level of description, but is presented as 'thick description'. This is reiterated by Vidich and Lyman (2000: 59,60) who say that '… *the aim of ethnography is to secure thick descriptions that will make thick interpretation possible*'. They are also of the opinion that '*an ethnography is now to be regarded as a piece of writing as such…* '.

The above explanations of data analyses are applicable to this study. The data analysis of this study started out as a thematic analysis, as described previously in this section as well as in Subsection 3.13.2. After the coding process was completed and the documentation of evidence commenced, it was realised that thematic descriptions were not possible in their purest form, and that the evidence would best be provided in the form of an academic report. It was however decided to keep the thematic analyses and the explanation of the coding process as part of the study as they enhance an understanding of the academic report.

3.13.1 The unit of analysis

The unit of analysis was the narrative descriptions of the case study that were obtained from the transcribed information of the focus group interviews (Graneheim & Lundman 2004:105). The transcriptions of the focus group interviews are presented as Annexes B and C.

Each transcript was read to obtain a sense of the comprehensiveness of the affective experiences of the participants. The transcripts were read a second time to identify the themes that were applicable to the questions asked. Then they were read for a third time, and the most important concepts were written in the left-hand margins, while the experiences were noted in the right-hand margins. All these concepts and experiences noted were read again. The analysers then read through the concepts noted in the left-hand margins, and selected the themes. Throughout the analysis, reflective remarks were made. These were written on separate pieces of paper, or in the right-hand margins of the transcriptions, but in a different colour. Making these notes and remarks assisted in interpreting and connecting parts of the transcripts, and in retaining a thoughtful stance (Burns & Grove 1997:55).

3.14 Coding

Coding was used to transform the raw data into a standardised form (Polit & Hungler 1993:329). This process was done step by step. It entailed the recognition of repetitive words, phrases, themes, and concepts or the recognition of words, phrases, themes, and concepts with similar meanings.

For level one coding, words, sentences or paragraphs that related to each other through their contents and context were considered (Graneheim & Lundman 2004:106). To describe the data and to get some insight into it, themes or *'meaning units'* were identified by means of *in vivo* coding (Burns & Grove 1997:534; Graneheim & Lundman 2004:106; Holloway & Wheeler 2002:239,240). Graneheim & Lundman (2004:106) were discussing the confusion surrounding terms used in qualitative research when they explained the concept *'meaning unit'* as follows:

> *'A meaning unit … has been referred to as a content unit or coding unit (Baxter, 1991), an idea unit (Kovach, 1991), a textual unit (Krippendorff, 1980), a keyword and phrase (Lichstein and Young, 1996), a unit of analysis (Downe-Wamboldt, 1992), and a theme (Polit and Hungler, 1991).'*

In this study, the term *'theme'* was used to refer to the first level of coding. Level two coding entails condensing data in an attempt to facilitate interpretation of the data (Burns & Grove 1997:534; Holloway & Wheeler 2002:159). Thus, an attempt was made to shed light on the specific *areas of content* but with little interpretation (Graneheim & Lundman (2004:106). Graneheim and Lundman (2004:106) define *'area of content' as follows:*

> *'Parts of text dealing with a specific issue have been referred to as a domain or rough structure (Patton, 1990), a cluster (Barrosso, 1997) and a content area (Baxter, 1991).'*

In this study, the concept *cluster* was used to refer to the second level of coding. Level three coding or axial coding was done to link the themes to the clusters and explain the meanings inherent to the situation. (Burns & Grove 1997:534; Graneheim & Lundman 2004:106; Holloway and Wheeler 2002:159.) Concerning this study, the third level of coding is referred to as *categories*. A category answers the question: *'What?'*. Clusters and themes within a category share a commonality, and therefore a

category can be identified as a thread that is running throughout the codes (Graneheim & Lundman 2004:107).

By applying this process to the raw data, the data was systemised (Henning 2004:107). This process is schematically set out in Figure 3.6. [Figure 3.6 must be read from the top left by following the arrows.]

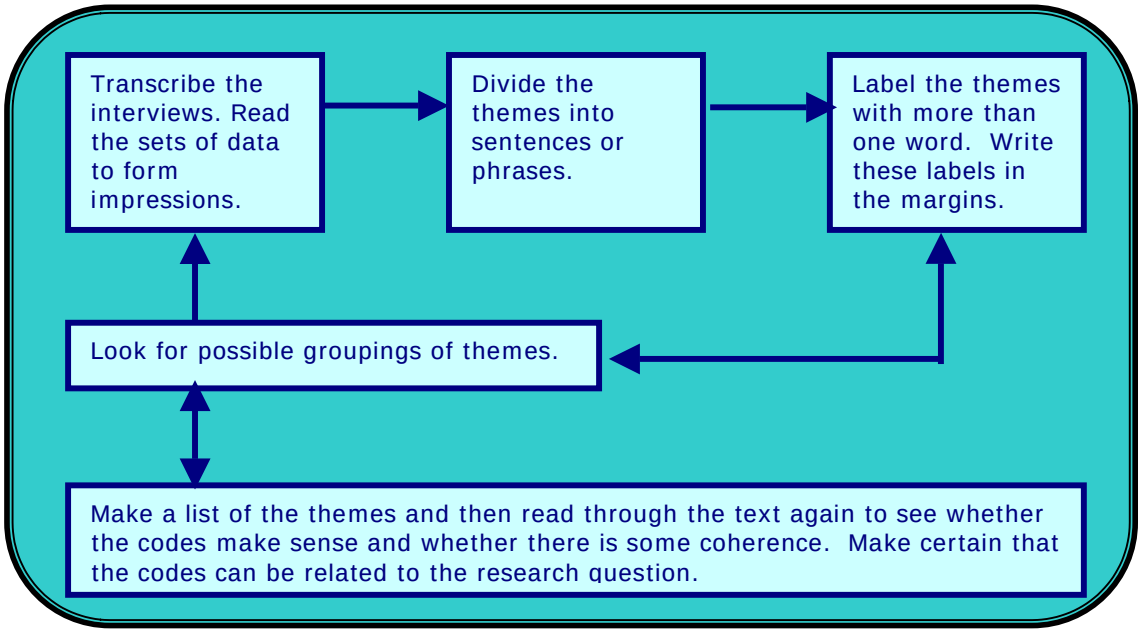


Figure 3.6: Process of coding (Henning 2004:104)

By phrasing or paraphrasing the words of the participants, themes could be identified (first level coding). By incorporating the themes into clusters (second level coding) and categories (third level coding), the themes were refined (Holloway & Wheeler 2002:239,240). Eventually, by comparing the themes to the whole, surplus themes were eliminated.

The following three main categories were identified when the data were coded:

- Curative factors;
- Process of affective development; and
- Inhibiting factors.

Category 1, called **Curative Factors**, contains the following clusters:

- Altruism versus individualism;
- Communication; and

- Internal drive and value system.

Category 2 is called **Process of Affective Development**. The clusters are called:

- Initial phase;
- Second phase; and
- Third phase.

Category 3 is called **Inhibiting Factors** and contains the following clusters:

- Negative experiences with regard to voting;
- Insufficient information;
- Lack of computer skills;
- Groups and interaction issues;
- The problem of language;
- Time and overload;
- Financial implications; and
- Problems with regard to the provider.

Figure 3.7 is a schematic representation of the development of these three categories. It was developed in an effort to explain the coding process followed in this study. [Figure 3.7 should be read from right to left and top to bottom.]

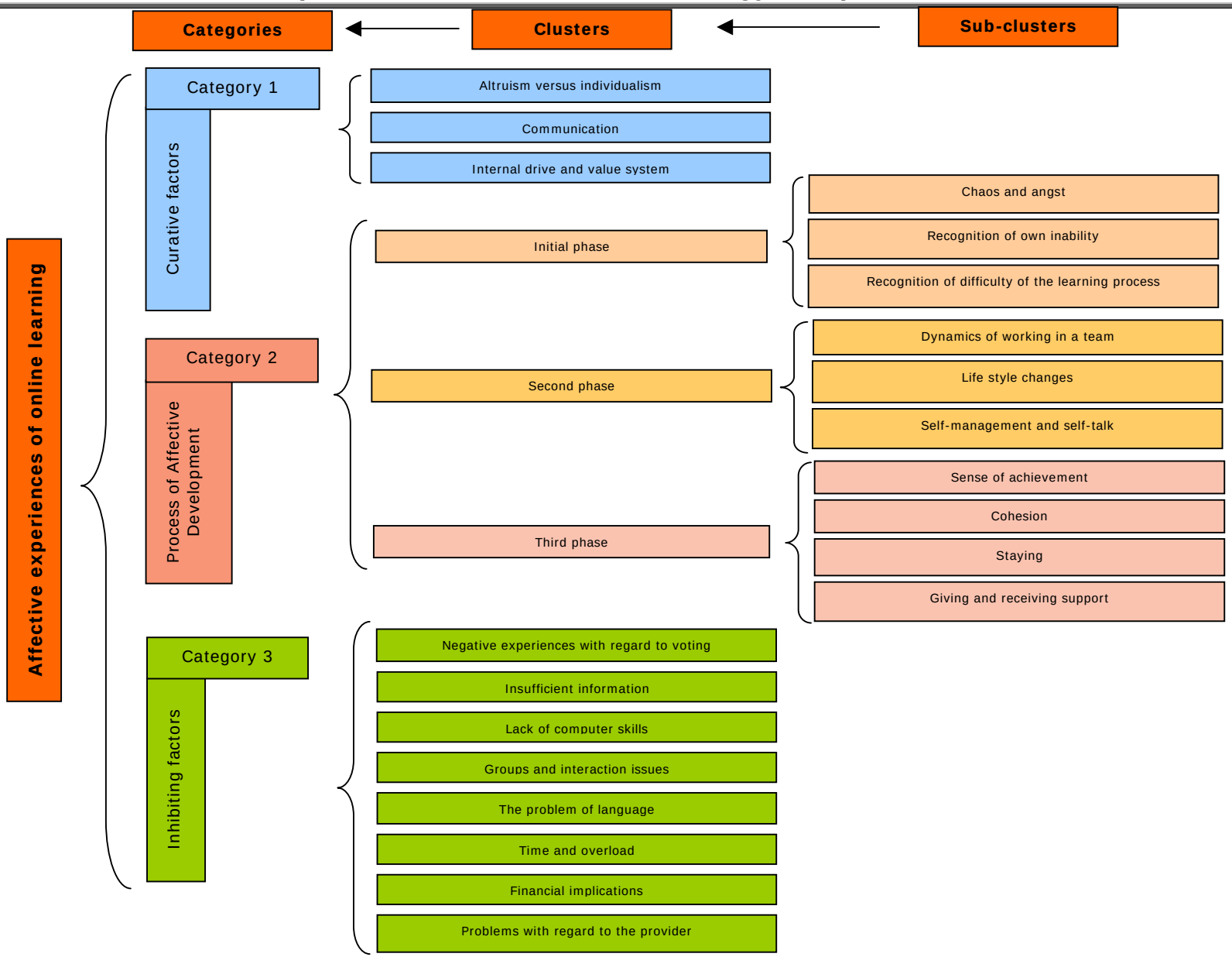


Figure 3.7: Process of coding data about experiences of online learning

To further explain the process of analysis, Figure 3.7 is broken down into Figures 3.8, 3.9 and 3.10.

3.14.1 Description of Category 1

The themes of Category 1 were written down as quotations or phrases. From these themes, three clusters were created, which were then put together to form Category 1. This process is explained in Figure 3.8. [Figure 3.8 should be read from right to left and top to bottom.]

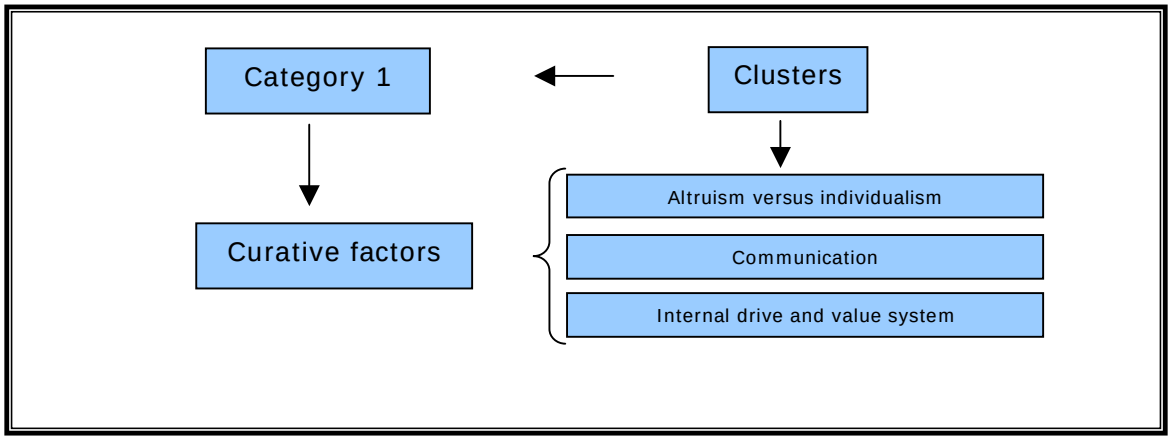


Figure 3.8: Curative Factors: Category 1 derived from analysis of focus group transcripts

The complete coding process of Category 1 is presented as Annexure E. A full analysis of the curative factors, as well as a literature control, is presented in Chapter 4.

3.14.2 Description of Category 2

As with Category 1, the themes of Category 2 were written down as quotations or phrases. From these themes, nine sub-clusters were formed, and from these sub-clusters, three main clusters were created. They were then put together to form Category 2. This process is explained in Figure 3.9 [Figure 3.9 should be read from right to left and top to bottom.]

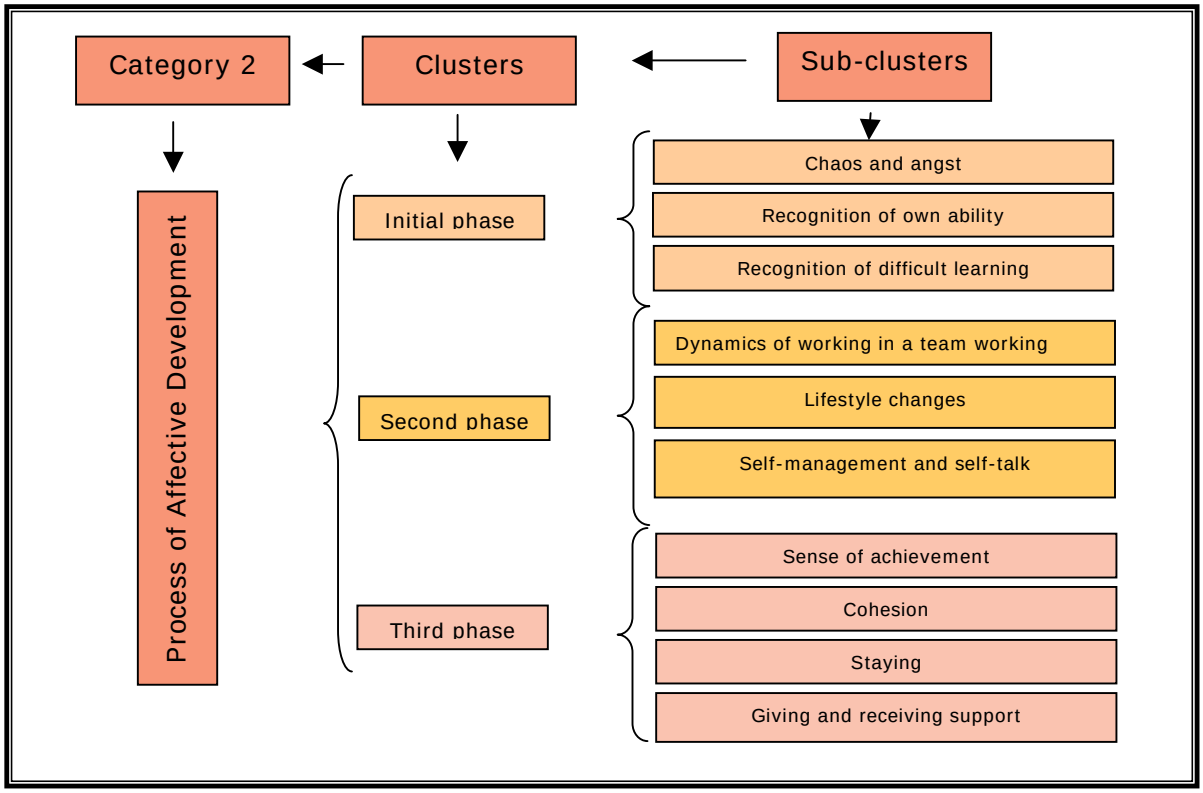


Figure 3.9: Process of Affective Development: Category 2 derived from analysis of focus group transcripts

The complete coding process of Category 2 is provided as Annexure F. A thorough analysis of the category *Process of Affective Development*, which includes the literature control, is presented in Chapter 5.

3.14.3 Description of Category 3

The themes of Category 3 were written down as quotations or phrases. From these themes, eight clusters were created, which were then put together to form Category 3. This process is schematically set out in Figure 3.10. [Figure 3.10 should be read from right to left and top to bottom.]

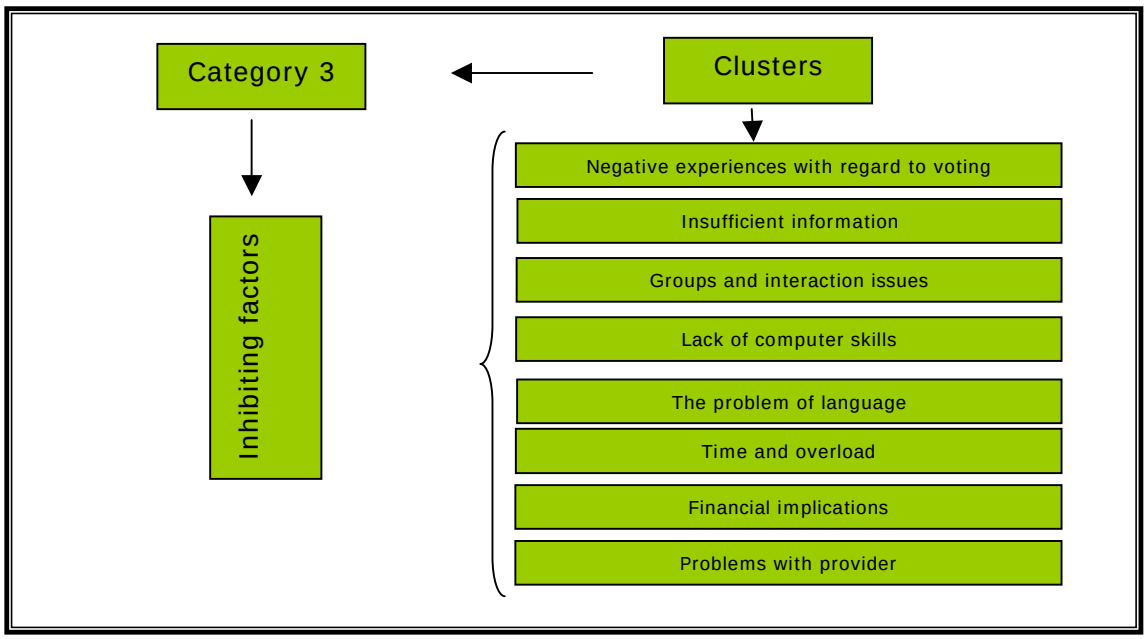


Figure 3.10: Inhibiting Factors: Category 3 derived from analysis of focus group transcripts

Chapter 6 provides a full analysis of the category *Inhibiting Factors* and includes a literature control. The complete coding process concerning Category 3 is provided as Annexure G.

3.15 Qualitative criteria

Morse's (1994:105-7) criteria were used to evaluate the trustworthiness of the study.

3.15.1 Confirmability

Confirmability guarantees that findings, conclusions and recommendations are supported by the data and that there is internal agreement between the researcher's interpretation and the actual evidence (Brink 1996:125). In this study, confirmability was obtained by applying literature control to the data. The transcripts of the focus group interviews are included as Annexures B and C, and are therefore available for scrutiny (Morse 1994:105).

3.15.2 Meaning of the context

An attempt was made to adhere to this criterion for trustworthiness by trying to understand the results of the study by considering the viewpoint of the participants (Creswell 1998:51; Holloway & Wheeler 2002:255; Maykunt & Morehouse 1994:44). I concur with Schwandt (2000:194) who is of the opinion that '*understanding is interpretation'*. My understanding therefore implies my understanding of the data in its context. The context for this study was the online learning module *CyberSurfiver* and their affective experiences during the module.

3.15.3 Recurring patterning and saturation

Recurring patterning was searched for and found in the verbalised and transcribed experiences of the participants (as obtained from the transcribed focus group interviews). Rich and thick descriptions were made, and it could be indicated that saturation of data was achieved during the early part of the coding of the second focus group transcription (Morse 1994:106). The repetition of quotations or the citing of quotations with similar meanings in Chapters 4, 5 and 6 (illustrating the different categories of meaning, namely *Curative Factors, Process of Development*, and *Inhibiting Factors*) is indicative of the richness or thickness of data and the extent of recurring patterning found in this study.

3.15.4 Credibility

A second independent data analyst was employed to co-code the data, and a third independent analyst was employed to authenticate the coded data (Holloway & Wheeler 2002:173; Morse 1994:119). These steps allowed the process of inquiry to be open to outside scrutiny (Cohen *et al*. 2000:86). By allowing the two other researchers involved in *The Collaborative Research Project* to read through the field notes and the interview transcripts enhanced member checking (Denzin & Lincoln 2000:393; Graneheim & Lundman 2004:109; Morse 1994:105). The detailed descriptions of the research design, the purposive sampling method and the implementation of *CyberSurfiver* allowed of no other conclusion but that the research process was credible. A literature control was done by comparing the relevant information obtained during literature searches to research data obtained during the course of this study (Brink 1996:124).

3.15.5 Transferability

By presenting the data in a manner that will allow the reader of the research report to look for alternative interpretations ensures adherence to the criterion of dependability (Graneheim & Lundman 2004:110). Transferability of the findings of this study depends on the person who wants to use it for future research (Graneheim & Lundman 2004:109). As qualitative research emphasises the uniqueness of the human situation, it is variation rather than identical replication that is sought (Field & Morse 1985:105). By providing the necessary description, this study would enable an interested researcher to make a transfer to another situation. It was attempted to document the findings of this study in such a manner as to empower a researcher who would want to extrapolate them to another situation (De Vos *et al.* 2002:352; Woods & Cantazaro 1988:453).

3.15.6 Crystallisation

Denzin and Lincoln (2000:5) indicate that the central image of qualitative inquiry is the central image of crystallisation and not the concept of triangulation. For the purpose of crystallisation, I wrote reflective notes throughout my engagement with the process of coding of the data. As I continued with the interpretation of the data I referred back to the reflective notes. By doing this I was able to derive interpretation from different perspectives. My ability to interpret the data from different perspectives was enhanced by the reflective discussions I had with my promoters.

Crystallisation in this study was further enhanced by the hybrid design that was employed. By using the bounded nature of a case study, and combining that with the ethnographic emic and etic perspectives, as well as interpreting meaning of the verbalised affective experiences of the participants by means of hermeneutics, assisted in the process of crystallisation. Crystallisation was further enhanced by: employing an independent coder, by focussing on detail, as well as revisiting data from time to time during the study. The uniqueness of the affective experiences of the participants throughout the module added to the realisation of crystallisation. On completion of the coding and data analysis, a consensus discussion was held between the co-coder and myself to clarify discrepancies and identify similarities.

3.16 Reporting the research

The research report was written by means of academic reporting that provided ample opportunity for including quotations. Academic reporting was done by explicating the data (Gillett 2004). Creswell (1998:186) is quoting Merriam (1988:193) when he states: *'There is no standard format for reporting case study research'*. He also adds: *'… the overall intent of the case study undoubtedly shapes the larger structure of the written narrative'*. This research report is therefore written in a report format, which is personal, familiar, and at times even 'up-close' in an attempt to be readable and friendly. By writing in this manner it was attempted to make the detail come alive and transport the reader directly into the world of the study (Creswell 1998:170).

According to Creswell (1998:170), researchers encode qualitative studies rather for audiences than other academics. This necessitates writing with less method, and more parsimoniously, with the focus on practice and results. The implication of this is that one may not conform to the traditional method and discussion manner of writing, but rather write about the procedures followed and the consequent findings of the research conducted.

In this research report, ample quotations were used to bring in the voice of the participants. Some of the quotations were included more than once as they had reference to more than one category of meaning. Long quotations were used to convey more complex understandings. This was done by typing them in italics and indenting the paragraphs at the left and right margins. Embedded quotations were used for a shift in emphasis or to display a point. These quotations were also typed in italics and enclosed in single inverted commas so that they could stand out from the text and be read with ease. Eye-catching quotes or words that needed to be emphasised were either underlined or printed in a bold font (Creswell 1998:170-171). Quotes are indicated as follows:

- FG (Focus Groups) = Quotes from focus group interviews;
- EM (Electronic Messages) = Quotes from asynchronous *Yahoo! Groups* text messages, and the *WebCT* e-mail facility;
- YM (*Yahoo! Messenger*) = Quotes from *Yahoo! Messenger* synchronous text messages.

A quote will be indicated according to the example provided below:

> **Quote FG 4.1**
>
> *'Ek is bang ek drop die ander ouens, jy weet, en dan maak hulle dit nie.'*
>
> [Translation]
>
> *'I was afraid of letting the other guys down, you know, and then they wouldn't make it.'*

The number of the quote can be interpreted as follows:

- FG indicates that the quote is from the focus group interviews;
- 4 indicates that the quote is in Chapter 4; and
- 1 indicates that the quote is the first quote in Chapter 4.

I was sensitive to the fact that my personal frame of reference with regard to online learning could influence my interpretation of the participants' experiences. I stayed aware of this possibility throughout the process of data analysis and during the continuous and repetitive handling of the data, and purposefully strived to avoid imposing uneven or inappropriate meanings on the stories of participants (Clandinin & Connelly 1998:172).

According to Glesne and Peshkin (1992:147), with regard to qualitative research, it is important that one recognises the limitations of one's study. This implies that one is doing the best one can under certain circumstances. In an attempt to create a descriptive research report, ample raw data as well as descriptive data were supplied (Lincoln & Guba 1985:298). This was also done to ensure that readers could relate to the study. I am of the opinion that the large number of quotes elucidates the depth and richness of the data.

As this study aimed at determining the affective experiences of students in an online learning environment, it was crucial to include descriptions of the affective experiences of students, as expressed in their own words and transcribed verbatim. For this reason, quotations are presented in the language used by the student. If necessary, the quotations were translated into English and indicated as such. Pseudonyms were used instead of real names, and a pseudonym was not necessarily indicative of the gender of the participant.

Many of the students expressed themselves in English-Afrikaans or Engfrikaans, a form of slang incorporating English words into the Afrikaans language. These were

also translated into English. In extreme cases of slang neologisms, paraphrasing was used as a translation technique. In all cases, equivalence was sought at and above word level, including grammatical equivalence and textual equivalence. The difficulties that participants experienced in expressing themselves in a language other than their mother tongue are explained in Subsection 4.4.4.

3.17 Ethical considerations

The following ethical principles were adhered to in this study: Respect for others; fair treatment; and protection from discomfort or harm (Brink 1996:39-46; Burns & Grove 1997:204-207).

3.17.1 Respect for others

This principle is based on the beliefs that people are autonomous and that they have the right to self-determination (Brink 1996:39). The participants had the right to voluntary participation without punishment, the right to withdraw without discrimination, and the right to clarity about the purpose of the research (Brink 1996:40). The right to voluntary participation is ensured by obtaining informed consent from respondents to participate in a study (Burns & Grove 1997:209-12). The fact that the online module was going to be used as a basis for three doctoral studies was openly communicated by the lecturer during the first and second contact sessions. All learners registered for this module verbally consented that their input be used for the purposes of research projects. The participation of students in this study was completely voluntarily. Before each focus group interview, written informed consent was obtained from participants. A copy of the informed consent document is attached to this report as Annexure A.

3.17.2 Fair treatment

Brink (1996:40-42) explains the principle of fair treatment as the participant's right to fair selection and privacy. The fair selection of participants was ensured by allowing them to select themselves and to participate voluntarily. The right to privacy can be explained as the participant's freedom to determine the extent of the information provided and withheld before the data is collected (Brink 1996:40-42; Burns & Grove

1997:203-204). In this study, the participants' right to privacy was acknowledged by providing them with the opportunity to give or withdraw informed consent, and by concentrating only on feelings and experiences that pertained to the module in question. The participants' right to refuse participation was respected without discrimination.

3.17.3 Protection from harm

The participants and the interviewer met for the very first time during the first focus group interview. Therefore, the interviewer could not attach the name of a person to an opinion or a statement made. Participants not only have the right to anonymity and privacy during data collection, but also maintain the right to anonymity and privacy throughout the study (Brink 1996:41). Burns and Grove (1997:204-5) see anonymity as the inability to match the participant's identity with the data, and confidentiality as the researcher's management of the participant's private and anonymous information. In cases where participants did mention the names of peers during interviews, pseudonyms were used in transcriptions, quotations and any other documentation of the findings. Confidentiality was upheld by destroying the audiotapes on which the interviews were recorded.

3.18 Summary

In this chapter, the research methodology and process were discussed. Research strategies, methods of data collection and data analysis, methods of ensuring authenticity and trustworthiness, as well as the ethical considerations were carefully explained. Figures and tables were used to illustrate and enhance understanding of the research design and the coding process. The analyses of Categories 1, 2 and 3 (namely *Curative Factors, Process of Affective Development*, and *Inhibiting Factors*), including the literature control, will be discussed in Chapters 4, 5 and 6.

Table of content

4 Curative Factors

4.1 Introduction

In Chapter 3, the research methodology and research process followed in this study were explained. In this chapter, the first category identified during the data analysis and coding process, namely *Curative Factors*, is presented. Findings include quotations obtained from the transcripts of focus group interviews and the printouts of synchronous conversations on *Yahoo! Messenger*, as well as e-mail text messages that students sent to each other and the lecturer during the time that the module was active.

4.2 Relation between curative factors and online learning

Curative Factors was the first category of data that was formed during the process of coding and analysing data. I decided to borrow the word *curative* from the nursing / medical field as it represents the process of healing. At the beginning phase of the module the participants were affectively not well, but a 'process of healing' started, and with time they became well. Anderson and Anderson (1994:281) defines the concept *'cure'* as:

> *'2. the favourable outcome of the treatment of a disease or other disorder.*
> *3. a course of therapy, medication, a therapeutic measure or another remedy used in treatment of a medical problem …'*

Stedman's Pocket Medical Dictionary (1987:176) defines the concept *'curative'* as:

> *'Tending to heal or cure'.*

According to the South African Concise Oxford Dictionary (2002:413), 'factor' is defined as '*A circumstance, fact or influence that contributes to a result',* while the Collier's Dictionary (1977:366) defines 'factor' as '*One of several elements that bring about a result or contribute to the formation of a thing or circumstance*'.

Considering these definitions, *Curative Factors* with regard to this study implied factors that contributed to the staying power and the motivation of students to complete the module. The meaning of *Curative Factors* can be explained metaphorically by linking them to a person's health. These are factors that prevented (cured) students from quitting the module (disease or illness), and assisted them in coping with the academic and emotional strain (maintaining health).

Three clusters of themes were put together to form the first category of meaning, namely *Curative Factors*. These clusters were *altruism versus individualism, communication,* and *internal drive or value system*. The themes of the three clusters, as discussed in this chapter (the themes form the headings of the subsections), are indicated in Table 4.1.

Table 4.1: Themes as discussed in Chapter 4

Category 1	Clusters	Themes
Curative factors	1. Altruism versus individualism	• Fear of failing or disappointing tribe members • Selfish behaviour versus assistance to group members • Feeling guilty about selfish behaviour • Group identification • Emotional and cognitive support • Risk-taking behaviour
	2. Communication	• Feeling of loneliness • Asynchronous versus synchronous communication • Expressing finding it difficult to cope • Language • Sharing positive and negative emotions
	3. Internal drive (marks, volition) and value system	• Negative emotions such as feeling agitated (frustration) • Feeling threatened and exposed • Self-image and image • Positive descriptions of experiences • Feedback from the lecturer • Negative experience of module not being a game

Under each theme indicated in the right-hand column of Table 4.1, quotes will be provided that will indicate the experiences of the participants as they pertain to the specific theme and the corresponding cluster (presented in the middle column of the table).

4.3 Altruism versus individualism

To promote understanding of the concepts *'altruism'* and *'individualism'*, definitions of the concepts, criteria indicating a statement as either altruistic or individualistic, as well as criteria for including such a statement in or excluding it from the cluster are

provided in Table 4.2. These definitions and criteria denoting *'altruism'* or *'individualism'* indicated whether the statement should be included in or excluded from the cluster. Definitions, criteria, and inclusion or exclusion criteria denoting altruism are found in the second column of Table 4.2, while the definitions of and criteria for individualism, as well as the criteria for inclusion in or exclusion from the cluster, are explained in the right-hand column of Table 4.2.

Table 4.2: Denoting altruism or individualism

	Altruism	Individualism
Definitions	• 'Behavior carried out to benefit another without anticipation of rewards from external sources' (Rushton 1980:7). • A philosophy 'that promotes the survival chances of other at a cost to one's own' (Altruists International [Sa]). • 'Unselfish concern or devotion to the welfare of others' (Collier's Dictionary 1977:28). • 'Selfless concern for the well being of others' (South African Concise Oxford Dictionary 2002:32).	• 'Only the individual is of interest … the quintessential ego of one's ego' (Lukes 1973: 67,68). • Individualism '…holds that every person is an end in himself and that no person should be sacrificed for the sake of another' (Stata 1992). • 'Theory and practice that emphasizes the worth, freedom, and well being of the individual against the authority of a group, community or state' (Collier's Dictionary 1977:524). • 'Independence and self-reliance. Self-centred feeling or conduct; egoism' (South African Concise Oxford Dictionary 2002:587).
Criteria	• When indicated that learners were afraid to disappoint team members. • If they helped and supported team members. • Where communication took place.	• If students verbalised that they wanted to help themselves first, and then others. • If students broke the rules set by the facilitator to secure their personal success.
Inclusion in cluster	• When concern for peers was illustrated.	• When students verbalised the desire to win, or to achieve good marks.
Exclusion from cluster	• When indicated that support was sought, but not given.	• If indicated that s/he was too busy coping to be involved in the group. • When an inability to work in a team was identified.

Quotations from focus group transcripts and e-messages denoting the different themes of the cluster, as they were identified during the coding process, are organised and presented under the following headings:

- Fear of failing or disappointing tribe members;
- Selfish behaviour versus assistance to group members;
- Feeling guilty about selfish behaviour;
- Group identification;
- Emotional and cognitive support; and
- Risk-taking behaviour.

These themes indicated either altruistic or individualistic behaviour; and the behaviour of the participants was the result of feelings experienced, such as fear, trust, distrust, safety, insecurity, joy, and stress.

4.3.1 Fear of failing and disappointing tribe members

Participants were afraid of failing the module and disappointing their peers. Some of them felt incompetent and said that they did not know enough to participate in the tribes. Participants expressed a fear of letting their tribal members down and being responsible for the failure of the tribe. One participant made a specific statement to this effect. She tried to rationalise the fear of letting team members down by saying that it was probably evoked by high personal expectations. She said:

> **Quote FG 4.1:**
>
> *'Ek dink dit is 'n kwessie van, dat jy, jy weet, ek stel altyd die balkie te hoog vir myself. Ek is bang ek drop die ander ouens, jy weet, en dan maak hulle dit nie.'*
>
> [Translation]
> *'I think it was a matter of, that one, you know, always set the bar (hurdle) too high for oneself; I was afraid of letting the other guys down, you know, and then they won't make it.'*

One of the participants, Marietjie, avoided group interaction altogether. She indicated that she did not partake in the group assignments, and only completed the individual assignments to accumulate sufficient grades. The interpretation was that she did not trust the ability of team members and/or felt incompetent to such an extent that she considered working alone as the only option. This participant said:

> **Quote FG 4.2:**
>
> *'No, I isolated myself from the group things and just carried on with the individual things, and made sure that I get enough marks for the individual ones.'*

As opposed to the individualistic behaviour of Marietjie, another participant felt so strong about not letting the group down that he concentrated on collaborative assignments only. He said:

> **Quote FG 4.3:**
>
> *'I did the exact opposite that Marietjie did. I don't like competing either, but I used more time on the group thing, because I didn't want to let the group down. So, eventually, I didn't have time to do the individual things, because I was now so trying to get the group, you know, trying to do my part for the group thing. And the only reason I did that, was because I didn't get any rope at all. If it weren't a competition, and only working in groups together, then it's the same thing that you*

say now. The group. I wanted to do my share, and eventually I failed, because my computer crashed, and I voted myself out.'

These two cases showed that people could have diverse experiences in similar situations. While the remark of the last participant reflected altruism due to feelings of fear of failing and letting the group down, Marietjie only expressed the desire to achieve sufficient marks. Therefore, her remarks reflected individualism and possibly incompetence or fear of failing. The last participant, however, clearly put the interest of the tribe above individual achievements.

Thus, the behaviour of some of the participants reflected altruism. However, the analysis also revealed individualistic behaviour by some participants who were looking after their own interests first. Voting off did not imply being voted off the module or the course, but only off the group into which participants were divided.

4.3.2 Selfish behaviour versus assistance to group members

Participants who said that they had to help themselves before they could offer assistance to others who needed help exhibited individualistic behaviour. Some of the participants stated that it was at first everyone for him- or herself. One participant indicated that she could not help someone who was struggling, even if she wanted to, as she was '*busy keeping her own head above water*'. When she received e-mail from a person who requested help, she felt that that person could wait two or three days until she had things figured out, and only then would she assist. She explained her position as follows:

Quote FG 4.4:

'… En ek wil nou eerlik wees, op daardie stadium, selfs al wou ek iemand help, kon ek nie, want ek was besig om net vir myself kop bo water te hou. En ek dink dis nogal waar – die ding was so intens, dat, dit was daardie eerste ruk elkeen vir homself. Jy kon nie…Iemand stuur 'n e-mail na Elearn toe en sê: ek kan nie dit doen nie, help my asseblief. Twee, drie dae daarna, as ek myne uitgefigure het, dan sal ek reply en sê hoor hierso, dit en dit en dit.'

[Translation]
' … Now honestly, at that stage, even if I wanted to help someone, I couldn't, because I was too busy keeping my head above water. And I think it is rather true – the thing was so intense that, it was at first everybody for himself. You couldn't … someone sent e-mail to eLearn, saying, I'm struggling, please help. Two, three days later, once I've figured mine out, then I will reply and say, listen, do this and this and this.'

Two other participants stated that they had to figure out things for themselves before they could assist others. They said:

Quote FG 4.5:

'…en sodra ek gemaklik was met die ding, dan kon ek begin om ander mense te help.'

[Translation]
'…and once I was at ease with it, then I could start helping others.'

Quote FG 4.6:

'Maar tot op daardie stadium, ek dink dit was elke week, was daar twee of drie dae van chaos wat ek nie vir iemand kon help nie.'

[Translation]
'But, up to that stage, I think it was every week, there were two or three days of chaos that I couldn't help anybody.]

However, the individualistic behaviour of participants had an altruistic undertone. This became evident when participants stated that they regretted being selfish when they were requested to become involved.

4.3.3 Feeling guilty about selfish behaviour

Hank sent e-mail to his tribe explaining that he could not be the leader of the tribe, as he was not even able to find the assignments that they had to do. Hank, as well as other participants, used the word 'sorry' to explain feelings about behaviour. Hank wrote:

Quote TM 4.1:

Joanita ek sou graag wou lei maar as ek nie eers op die assignments kan kom nie sal dit nie juis werk nie. ***Jammer*** *om almal teleur te stel.*
Beulah, Thanks for the motto, it is the only thing that is keeping me sane and going. Lets give real meaning to it.
E-Go We-Go All-Go, even if it is Slo-go!
Hank

[Translation]
Joanita, I would gladly lead, but as I can't even find the assignments, it will not really work. ***Sorry*** *to disappoint you all.*
Beulah, Thanks for the motto, it is the only thing that is keeping me sane and going. Lets give real meaning to it.
E-Go We-Go All-Go, even if it is Slo-go!
Hank
[Own emphasis]

Some participants expressed regret at not being able to help their peers. They indicated that deadlines arrived before they were in any position to assist a group member. The following quotations are evidence of this feeling of regret.

Quote FG 4.7:

*'Ek's **baie jammer**. Ek het net my eie bas probeer red, en dan daarna, kan jy iemand anders probeer help, maar dan is dit baie keer te laat vir daardie persoon.'*

[Translation]
*'I'm **really sorry**. I only tried to save my own skin, and then, after that, you could try to help somebody else, but then it was often too late for that person.'*
[Own emphasis]

Quote FG 4.8:

'Of dit is so laat in die week, verstaan, of dit is so laat in die week, dat daardie persoon nie kan die goeters klaarmaak in tyd van die afsnydatum Sondagaand twaalfuur nie.'

[Translation]
'Or it is late in the week, you know, or it is so late in the week that that person cannot finish the stuff in time for the cut-off date on Sunday midnight.'

The feeling of regret experienced by participants probably related to a feeling of group identification that developed through the course of events.

4.3.4 Group identification

Being part of a group or being recognised as part of a group seemed to be an element of the module that was enjoyed by participants. The mere fact that a participant realised that s/he was not the only person working hard, or struggling, strengthened the feeling of belonging to a group. The fact that they realised that they were experiencing the same hardships made them feel closer to one another. One participant said that it was wonderful to receive a message in the middle of the night when she was at wits' end. She stated:

Quote FG 4.9:

'… was dit die lekkerste gevoel om halfeen die nag te sit met jou hande in jou hare, en woep, hier kom 'n boodskap op: Ag, ek is bly om te sien jy's ook op. Waarmee is jy besig? Ek sukkel met hierdie ding. Ek kan dit nie doen nie. Help my. Nee, maar probeer dit, probeer dit. So die spanwerk met die synchronous kommunikasie het vertienvoudig …'

[Translation]
' … it was the most wonderful feeling to be at wits' end at half past twelve in the night, and wham, a message appears: Oh, I am so glad to see you are also up. What are you busy doing? I'm struggling with this thing. I can't do it. Please help. No, but try this, try that. So, teamwork increased tenfold with synchronous communication…'

One participant said that the link with peers made her continue trying to solve problems that she experienced. She said:

Quote FG 4.10:

'Vir my was dit wat my laat aanhou werk het, en aanhou probeer het, en aanhou karring het aan hierdie goed wat ek nie altyd regkry nie. Want die feit dat, dit was nie net 'n rekenaar nie. Dit was nie net 'n skerm en 'n keyboard nie, en ek het 'n probleem nie. Daar was ander ouens wat saam met my in die game was. Daar was ouens wat saam met my gesuffer het, so die feit dat daar 'n gesig agter die skerm was, …'

[Translation]
'For me, that made me keep working, and keep trying, and keep working on this stuff that I couldn't always manage. 'Cause the fact was, it was not just a screen, and just a keyboard, and I having a problem. There were other guys with me in the game. We suffered together, so the fact that there was a face behind the screen, …'

A participant echoed the 'positive' feeling of not needing to struggle alone. During the focus group interview, this participant said that she missed the interaction that they had in the middle of the night.

Quote FG 4.11:

'… dit was regtig – ekskuus vir die Engelse woord – exciting om eenuur in die oggend op die Net te gaan, en jy sien met Yahoo! Messenger, o, daardie ou is ook online … Ek mis dit…'

[Translation]
'… it really was – pardon the English word - exciting to access the Net at one o'clock in the morning, and you see with Yahoo! Messenger, oh, that person is online too! … I miss that…'

While it could be argued that the computer and the Internet were mere objects, the abovementioned participant saw a face of a peer behind the screen of her computer. 'Seeing' each other as individuals and as members of a group, without actually seeing each other, led participants to support one another. Although being linked invisibly in cyberspace, participants indicated that they experienced support on both emotional and cognitive levels. This may be described as an altruistic factor.

4.3.5 Emotional and cognitive support

One participant indicated that he received moral as well as cognitive support from tribe members. He simply said:

Quote FG 4.12:

'And support from your tribe members as well. That was… I think moral support as well as cognitive support sometimes.'

The following e-mail was sent by Gérard who did not know to which tribe he had been assigned. Bernice replied and made him feel welcome by making a joke. She wrote:

Quote EM 4.2:

Hi Friends
HELP, I do not know which tribe I am in. Will anybody take me in?
Any help?
Good luck
Gérard

Quote EM 4.3:

Hallo
You are in group 4 with virtual eve – will however have to undergo a sexchange [sic] before joining the group as it exists of ladies only!
Good luck!
Bernice

Support was sometimes offered. The following e-mail message indicated how Bob offered to help three of his peers who did not contribute to the website of the tribe. Although Bob's offer to help was linked to his responsibility to keep the tribe's website up to date, he also realised that three of his group members probably needed help.

Quote EM 4.4:

Hi B, J and Tiny,
I did not receive anything from you for the tribal web page, or your personal assignments. The deadline is now past, but please let me know if you need any help.
Bob

Support was also provided in the form of congratulations. The following e-mail was sent by Barbara to the lecturer, but for the eyes of all participants/tribe members who were successful in completing the assignment. She wrote:

Quote EM 4.5:

Hi Linda
Kindly receive tribe 5 URL[18] *http://tribe-5never-die.20m.com*
Regards
Barbara

Barbara was congratulated by a number of her peers. Camilla sent the following e-mail:

Quote EM 4.6:

Congratulations Tribe 5! You did a great job.
Camilla

[18] URL = uniform resource locator (web address)

Hendrik congratulated Barbara as follows:

Quote EM 4.7:

Is the site still under construction? The URL do [sic] not go to a tribal site, but to 20m.com sign-up/site creating tool.
I like tribe 5's name - "tribe-5never-die" - very creative: Barbara WELL DONE!!
Hendrik

Gérard congratulated Barbara as well. He wrote:

Quote EM 4.8:

CONGRATULATIONS BARBARA!!
Looks good!
Gérard

Support was not only evident when congratulations were given on performances, but also when personal messages were sent. Joanita supported Bob who started a new job. She wrote:

Quote EM 4.9:

Bob,
Is it not your first day in the new job tomorrow?
If it is, good luck!
Joanita

Support was also provided in cognitive matters. Bob and Gérard communicated via e-mail about something that Bob did on their website. Bob provided the information by replying to Gérard's e-mail message. The e-message, including the reply, is presented.

Quote EM 4.10:

Hi Bob
I see you have changed your island picture on the hagar-site [sic]. How did you do it?
I feel a bit dof [dense]!
Gérard

Quote EM 4.11:

Gérard, in your directory on Hagar there is a subdirectory called images. In this there is a file called shelter.gif. Just replace it with the file you want... also called shelter.gif.
Cheers,
Bob

In this supportive environment, Rachel felt safe to such an extent that she requested assistance with regard to a problem that she experienced. She sent the following e-mail to Bob:

Quote EM 4.12:

Hi Bob,
I need help with my website on http://hagar.up.ac.za/catts/learner/students/2002 [name of participant]/oro/index.htm
I don't know how to connect the pages to the index.html, which is the first "home" page.
Can you help?
Thanks in advance
Rachel

Participants exhibited other kinds of behaviour as well. Some participants took risks. For different reasons, they broke the rule on communication and/or the rules of the game. Some of these reasons relate to either altruistic or individualistic behaviour.

4.3.6 Risk-taking behaviour

There was no doubt that participants exhibited risk-taking behaviour by breaking the rules of the game and, especially, the ruling on communication. One participant simply stated:

Quote FG 4.13:

'Ons het die reëls verbreek.'

[Translation]
'We broke the rules.'

A number of the participants acknowledged that they had interpersonal contact with tribe members by phoning them about matters pertaining to the module. During these conversations, support was either given or asked. Participants knew that they were breaking the rule on communication. One of the participants said that she phoned people sometimes, even though it was 'illegal'. She said:

Quote FG 4.14:

'Well, I sometimes phoned people. Even if it was against the rules.'

Another participant confirmed that he had phoned more than one tribe member in order to receive 'final clarity' on a project.

Quote FG 4.15:

'When the whole thing didn't work so, to get final clarity, I sometimes phoned Sanet and Pedro and so.'

Although it could be expected that participants would adhere to the ruling on communication, as well as the general rules of the *CyberSurfiver* game (at least

during its first stages), the opposite seemed to be true. One participant was eager to inform the focus group interviewer about the time aspect of the 'offence'. She said:

Quote FG 4.16:

'Can I say when I phoned? I phoned, I used the telephone right at the beginning, before we had Messenger.'* [*The Internet chatroom *Yahoo! Messenger*]

Breaking the 'only online' communication rule was done openly. Bob and Mindy had the following conversation via e-mail: Mindy requested help; Bob made suggestions on what should be done, and then invited her to phone. Their conversation follows:

Quote EM 4.13:

Hi Bob
This blond definately need [sic] *some assistence* [sic] *with this week's assignment:*
1. How do I change the picture of the shelter?
2. How do I FTP my site to the Hagar site - I can get into my folder, but then I don't know what to do next. Hope you can help!
Groetnis [Greetings]
Mindy

Quote EM 4.14:

Hi Mindy,
Sorry I am only replying now, but I have of course been at work. If your [sic] *want to save your current site on Hagar, I would go about it as follows:*
1. Open your current site in Internet Explorer.
2. Save it using the save as function under the files menu. Choose to save all the page content including images.
3. FTP these files to Hagar. I'm not sure (since I don't use MSWindows at all), but I think that if your have Internet explorer 6.0, its pretty much like a copy and paste exercise. Using Internet Explorer, go to ftp://hagar.up.ac.za/students. Find your home directory, find the ORO sub directory and paste your files in this directory. Make sure your index file is called index.htm and not index.html. If you are not using Internet Explorer, or can't get it to work, try a shareware FTP program like Cute FTP.
4. A second option is not to move your site at all. There may be problems in any case with embedded objects like banner ads etc. You can just create a link from your home page on Hagar to your current site. I think the idea is that you learn to FTP though!
Please phone me if needs be on 082 ..... if you get desparate! [sic]
Bob

However, disobeying the 'only online' communication rule was not limited to personal contact by means of a telephone or cellphone. Gérard probably gave himself away when he indicated to the lecturer that he had 'spoken' to Sanet. He sent e-mail to the lecturer saying:

Quote EM 4.15:

Hi Linda
When I spoke to Sanet over the weekend, she said we only had to find information on free stuff on the Web ...
Gérard

Whether he spoke to Sanet face-to-face, or whether they communicated by means of the phone or e-mail, was not known. This was, however, interesting, because if they did meet face-to-face, they both would have broken the 'only online' communication rule. If they did communicate by e-mail, the use of the word 'spoke' could indicate that online communication was sometimes seen as personal communication.

Since the lecturer and the researcher (and all the participants) had access to all the e-mail sent, it was rather surprising that the rule on communication was openly disobeyed. However, an external factor could have contributed to this state of affairs. As the participants were still receiving education and training on databases once a week at the time of launching the *CyberSurfiver* game, they had the opportunity to meet face-to-face in a formal class situation. During these sessions, they were forced together in the same physical space, which created the ideal environment in which some of the rules of the game could be broken. A participant made the following remark with regard to this aspect of the course:

> **Quote FG 4.17:**
>
> *'Can I just say something that didn't come out last time* [during the first interview]*? When we started this course, we actually had two courses together. Am I right? We came together on Thursday evenings for [lecturer's] databases, and then, after about three or four weeks, they said that we are going to stop this because there is so much work in the Surfiver module.'*

It should also be noted that the participants knew one another before they started the *CyberSurfiver* module. They became acquainted earlier when they did a few modules of the master's degree course in computer-assisted education. This could have influenced their behaviour in not keeping their promise to obey the ruling on communication. It could be assumed that bonds of friendship were created while they studied and struggled together. As one participant put it, they already went '*through deep waters*' by that time. The following two quotations substantiate this assumption:

> **Quote FG 4.18:**
>
> *'Yes. We went through deep waters before this already. But we weren't friends specifically, I think, like we – I didn't know Pedro and Bettie, for instance, and Sanet and so on. And Gérard as well. And in this time, we kind of re-separated* [sic]*, and we got to know each other there.'*

> **Quote FG 4.19:**
>
> *'You know what the thing was also that I'm thinking of now, in class, we were friends before we did this. You must remember, this was our third module, so by that time, we knew each other.'*

It was, therefore, not a total surprise to learn that participants were breaking the rule on communication by visiting each other at home on individual or private occasions. One participant said:

> **Quote FG 4.20:**
>
> *'We visited each other. Well, the first four lessons when we – the first four weeks when we came here on Thursday evenings, we spoke. People visited each other. That's it.'*

Another participant commented that his wife probably thought that he was cheating on her, as Sanet came to his house for assistance and support. He said:

> **Quote FG 4.21:**
>
> *'… I think my wife thought Sanet was my "skelm" [mistress].'*

From the above quotations, it was clear that the participants disobeyed the communication rule not only by phoning each other but also by having face-to-face contact. They spoke to each other, visited their friends, and met for assistance and support.

Participants were aware that all e-messages could be accessed by all participants as well as the lecturer and researcher. The lecturer, who probably suspected that participants met face-to-face and who noticed the offer of telephonic assistance between Bob and Mindy, sent the following reminder:

> **Quote EM 4.16:**
>
> *Remember that strictly speaking no discussions about the online part of this module is allowed in [name of the lecturer] contact sessions ;-) I assume therefore that you are going to discuss your technical difficulties online...*
> *In the ideal world - just a few tips!*

Note that the lecturer did not sign her name at the end of the e-mail message. This may be an indication that she wanted to emphasise the seriousness of the rule that she made. She was exercising her authority and probably wanted her message to sound like a warning, *i.e.* less friendly and strict. Regardless of the lecturer's reminder on the ruling about communication, participants went ahead and broke the rule anyway. Participants acknowledged the 'illegality' of their actions, and it seemed that some of them felt guilty about breaking the rules. One participant even suggested that a third focus group session should be held so that more information on the illegality of their communicative actions could become known. She said:

Quote FG 4.22:

'That was very illegal…you know that. Now is the first time that I've said it, but… So there should be another session, because then even more would come out.'

Participants gave different reasons for breaking the rules of the game, including the only-online communication rule. These reasons could be related to the need to communicate feelings of incompetence and stress, the need for immediate feedback and support, and the need to give support (an altruistic feature).

The need for immediate feedback was expressed by the participant who acknowledged that she had broken the rule on communication early in the game. She phoned a group member even before the game was well on its way, because she had the need to feel that she was coping. Quote FG 4.16 should be read in conjunction with Quote FG 4.23. She said:

Quote FG 4.23:

'Because with Messenger I could type: "Hello Sanet, hoe gaan dit met jou?" ["How are you?"] And she'd say: "Dit gaan goed, maar ek sukkel hiermee." ["I am well, but I find this difficult."] So, that circle of communication to me is very important. I can't send an e-mail to her and tomorrow get a reply and I can't remember what it's about.'

The need for immediate feedback and support was also expressed by another participant who emphasised that he could not afford to wait for e-mail to arrive.

Quote FG 4.24:

'What's bad about that is that you would get thirty e-mails every evening. That's bad. And you don't know which ones to read and which ones to ignore. Some people will just say: "Ag nee, dit gaan sleg!" ["Oh, no! It's not going well.] And someone else will say: "Ja, met my ook!" ["Yes, me too"], and you'll get all this [sic] *e-mails. And you also didn't have an evening to wait. I had to do my stuff, like Michelle said, if I don't do this tonight, I would sleep two hours less tomorrow. So, instead of waiting for Sanet to e-mail, or Pedro to e-mail, I would phone them. Yes. And say listen, I'm struggling with this. Help me quickly. Get on with the task.'*

Probably because they did feel guilty, participants attempted to rationalise their communication behaviour. One participant felt that they did not often disobey the rules, but admitted that it could have happened twenty per cent of the time. He also acknowledged that they made personal contact to discuss problems, but explained that contact was aimed at supporting each other. He said:

Quote FG 4.25:

'Not extensively. I wouldn't say so extensively. I want to say, what I saw is – well, I don't know what everybody did in the dark, but what I know with my knowledge is that the breaking of the rules is maybe twenty per cent of the time. Not we break the rules all the time, we chat all the time on the telephone or whatever. It's just

sometimes if you had a problem. I just want to say, a lot of the talking if we did talk, was more in a supportive way than in a technical, academic –'

From this comment it was clear that participants broke the rule because they wanted to support one another emotionally. This could be regarded as an altruistic feature of communication.

Breaking the communication rule was not the only rebellious or risk-taking activity that was displayed. Further risk-taking behaviour was exhibited by not voting tribe members out during the final stages of the game.
A participant said:

Quote FG 4.26:

'Ek wou gesê het van wat Hendrik nou gesê het. O, nee! Wat ek wou sê van die reëls verbreek, is dit: in die laaste pylvak, het niemand gestem nie.'

[Translation]
'I wanted to say what Hendrik just said. Oh, no! What I wanted to say about the breaking of the rules was: on the home straight, nobody voted.'

One participant voted himself out of the game. He said:

Quote FG 4.27:

'Maar ek het myself uitgestem, weet ek, want ek het my computer gecrash. Ek het vir Linda ge-e-mail.'

[Translation]
'But I voted myself out, I knew that, because my computer crashed. I e-mailed Linda.'

These actions probably were a sign of altruistic behaviour. By that time, group members had shown that they cared about the other members of the tribe. By not voting tribe members out, they were showing that they had the interests of the tribe at heart. Interestingly enough, although the actions of the majority of the participants suggested an undertone of altruism, two of the participants had their own interests at heart. One participant and a friend from his original tribe did not want to cooperate with 'weaker' tribe members, as they had the desire to do well. This participant communicated with the lecturer, also on behalf of his friend, and informed her that they were forming their own tribe, regardless of the fact that they were breaking the rules of the game. He said:

Quote FG 4.28:

'Ek het vir haar [die dosent] *gesê ek gaan dit* [die reëls] *breek, en ek het nie geworry daaroor nie. Ek het vir haar gesê, ongeag van wat jy sê, dis wat ek gaan doen, want ek wil my waarde vir my geld kry uit hierdie survivorstorie uit, en ek*

gaan nie in 'n groep sit waar ek die enigste een is wat alles moet doen, en al die ander mense dra in die proses nie, want dit gaan ook oor punte aan die einde. Dit was aan die einde van die dag 'n spel gewees, en ek dink baie van die reëls was gemaak om te breek. Ek het byvoorbeeld, as ons 'n opdrag gekry het, het ek gekyk in hoe 'n mate ek my kinders daarby kon betrek het, wat waarskynlik meer tyd en kennis as ek het.'

[Translation]
'I told her [the lecturer*] that I was going to break them [the rules], and I didn't care. I told her, regardless of what you say, this is what I'm going to do, because I want value for my money from this survivor story, and I'm not going to be part of a group where I'm the only one who has to do everything, and carry all the other people in the process, because in the end it's about marks as well. At the end of the day, it was a game, and I think many of the rules were made to be broken. For example, when we received an assignment, I tried to see to what extent I could involve my children who probably knew more than I did and who had more time on their hands.'*

During the same interview, the participant repeated that he did not want to be part of a group where he had to do all the work. He again indicated that they (his colleague and he) felt so strongly about it that they formed their own tribe. The fact that he was adamant is reflected in the following quotation:

Quote FG 4.29:

'…het ons besluit, ek het besluit ek gaan nie deel van daai groep word nie, en ek het vir Linda ge-e-mail en gesê dit is my redes, en ek gaan, ons gaan ons eie groep vorm. So, daai groep was gestig, toe vorm ons 'n aparte groep, want ons wou nie deel van daai groep word nie.'

[Translation]
'… we have decided, I decided I was not going to be part of that group, and I e-mailed Linda and told her these were my reasons, and I was going to, we were going to form our own group. So, that group was formed; then we formed a separate group, because we didn't want to become part of that group.'

With regard to the formation of the new tribe, the following e-mail was sent from Joanita to her 'partner in crime':

Quote EM 4.17:

Ek sukkel net so om reaksie uit die lede van Groep 3 te kry.
Ek vote myself uit dat [sic] *vorm ons die nuwe groep!!! Ons moet net iemand kry wat bietjie meer weet van webdesign anders het ons 'n probleempie. (Nie dat dit moeilik behoort te wees om iemand te kry wat meer kennis het as altwee van ons saam nie!!!)*
Sterkte
Joanita

[Translation]
'It is every bit as difficult for me to get reaction from the members of Group 3. I vote myself out; then we form the new group!!!. We just have to find someone who knows a bit more than we do about web design; otherwise we have a small problem. (Not that it should be difficult to find someone who has more knowledge than the two of us together!!!)
Good luck
Joanita

To summarise, it seemed that most participants were motivated to stay in the game by the support that they received from tribe members. Group members would even break the rules of the game in order to show or give support. While most participants illustrated concern for their peers, some individuals were motivated by their desire to do well. None of the participants, whether motivated by altruistic or individualistic intentions, could achieve her/his goals by not communicating with the lecturer and tribe members. The extent, to which the rule on communication was broken, could be derived from the above quotations. One result of the breaking of the rule was that more communication methods were employed than prescribed by the *CyberSurfiver* game format. The second cluster of themes, namely Communication, will be discussed next.

4.4 Communication

The cluster that follows on *Altruism versus Individualism* is the cluster called *Communication*. Definitions and criteria denoting the concept 'communication' are presented in Table 4.3. All that meets the criterion for communication as defined in the middle row of Table 4.3 will be discussed in this section. The criteria for including a statement in the cluster or for excluding it from the cluster are given in the last two rows of Table 4.3.

Table 4.3: Denoting communication

	Communication
Definition	⊛ *'A process whereby symbols generated by people are received and responded to by other people'* (Samovar, Henman and King 1996). ⊛ *'Involves the reciprocal process of sending and receiving messages between two or more people'* (Smith 1992:4). ⊛ *'Depends on having the equipment (both verbal and non-verbal) for social signalling'* (Louw and Edwards 1993:749). ⊛ *'Transfer of information, as facts, wishes, or emotions from a source to a receiver'* (Collier's Dictionary 1977:203). ⊛ *'The action of communicating. A letter or message containing information or news. Social contact. The means of sending or receiving information, such as telephone lines or computers'* (South African Concise Oxford Dictionary 2002:233).
Criteria	All types and means of communication used during the course of the module between participants, as well as participants and the facilitator of the module.
Inclusion in cluster	⊛ Moral support. ⊛ Information to assist in completion of assignments. ⊛ Asking for support or information. ⊛ Synchronous and asynchronous communication. ⊛ All types of feedback from facilitator.
Exclusion from cluster	Communication that took place before commencement and after completion of the module.

The following themes were identified and clustered under the heading *Communication:*

- Feeling of loneliness;
- Asynchronous versus synchronous communication;
- Expressing finding it difficult to cope;
- Language; and
- Sharing positive and negative emotions.

During the first three weeks of the module, the participants accessed the Internet and the online *Yahoo! Group* at different times of the day and night due to their different schedules. They had to rely on e-mail sent via the *Yahoo! Group* for all communication with each other and the lecturer. During this period, participants experienced online communication as a lonely affair. They felt that they were on their own and had to 'figure out things' all by themselves.

4.4.1 Feeling of loneliness

Feelings of loneliness and isolation were experienced by a number of participants. Within the context of the highs and the lows of the *CyberSurfiver* module, one participant experienced this feeling of loneliness as a 'low'. He said:

> **Quote FG 4.30:**
>
> *'Die lows was, ek dink veral op stadiums as jy dalk nou byvoorbeeld wat – ek meen, ons het ook maar verskillende tye wat ons op die Net geklim het, en … uhm… as jy met jou lonesome self daar sit en jy probeer, probeer uitfigure wat daar aangaan, en jy't nie regtig die geselskap soos wat ons eventueel eintlik toe nou met Yahoo! Messenger begin kry het nie. Dit was lekker.'*
>
> [Translation]
> *'The lows were, I think especially at stages when you perhaps, for instance, what - I mean, we were on the Net at different times, and … um… when you sit there with your lonesome self and try to figure out what is going on, and you do not really have the conversation which we eventually did have through Yahoo! Messenger. That was nice.'*

The feeling of loneliness was experienced by a number of other participants as well. The first part of the module was experienced as a lonely affair by a participant who stated:

> **Quote FG 4.31:**
>
> *'Wat vir my nogal die eerste helfte – as ek nou moet dink, dit was nogal alleen, want jy sit daarso en jy werk aan jou ding, en jy kan dit nie regkry nie, en jy stuur nou maar 'n e-mail na eLearn toe, en more-oggend miskien het een of twee mense reply, en dan kyk jy nou maar wat jy kan doen en so-aan.'*
>
> [Translation]
> *'For me, the first half kind of – if I have to think now, it was kind of lonely, because you sit there and work on your thing, and you're struggling, and yet you send e-mail to eLearn, and perhaps in the morning one or two guys have replied, and then you see what you can do, and so on.'*

Loneliness was described by another participant as a cause of increased levels of uncertainty and anxiety. The participant said:

> **Quote FG 4.32:**
>
> *'That will, I think it will increase your uncertainty, your anxiety. I think the main thing is you're alone.'*

Feelings of loneliness, anxiety and uncertainty were experienced particularly late at night, and these feelings, according to one of the participants, adversely affected the participant's expectation of reaching the outcomes of assignments. Three participants made the following comments:

Quote FG 4.33:

'Ja [Yes], isolation. The isolation is tremendous. Especially late at night.'

Quote FG 4.34:

'I was really isolated at home. I just had to get on with it.'

Quote FG 4.35:

'Jy voel vreeslik alleen terwyl jy daar sit, en solank jy die ding nie regkry nie, weet jy hoe ver is jy van regkry af – jy is nog steeds net nie daar nie.'

[Translation]
'You feel terribly lonely while you are sitting there, and as long as you are struggling, you know how far you are from finding a way to do it – you are still just not there.'

However, since the introduction of *Yahoo! Messenger* (a synchronous communication tool), participants felt less lonely. A participant explained that everyone experienced the communication situation as chaotic until *Yahoo! Messenger* was introduced. When that happened, they could communicate directly with one another, instead of sending e-mail and waiting for a reply. He said:

Quote FG 4.36:

'… aan die begin was dit absolute chaos vir almal gewees, en ek dink met Yahoo! Messenger wat toe nou begin inkom het, het die boodskappe op die message bord begin verminder, omdat ons so direk met mekaar kon begin kommunikeer. En dit was vir my ook baie, baie nice.'

[Translation]
'… in the beginning it was absolute chaos, for everybody, and I think when Yahoo! Messenger was introduced, the messages on the message board started to decrease, because we could start to communicate directly with each other. And that, for me, was also very, very nice.'

Some participants immediately made use of synchronous communication to request assistance, as they felt lost. Gérard was anxious to get information, while Sanet mentioned that she also was in the dark.

Quote EM 4.18:

HELP!! I am lost! What exactly do we need for Thursday? … Website? 600 word [sic] summary of what? HELP please!
Gérard

Quote EM 4.19:

Hi all
Linda, I'm in the dark too. I had problems connecting and stying [sic] connected with the Net- resulting in changing to a new service provider- ABSA. *…*
Please help!
Sanet

Not only were participants lonely or lost, but they also considered the asynchronous manner of communication as problematic.

4.4.2 Asynchronous versus synchronous communication

Participants were of the opinion that e-mail was 'lifeless' communication, as they sometimes had to wait for a reply. This situation was especially troublesome when they had a problem, and requested assistance from their peers. They needed an immediate reply so that they could continue with their assignments, but had to wait. One of the participants said:

> **Quote FG 4.37:**
>
> *'Want ek dink e-mail, om met e-mail te kommunikeer, is soort van 'n dooie kommunikasie. Jy weet, jy praat met die ou, en dan moet jy wag voordat daar 'n antwoord terugkom. Maar van die Messenger was dit lekker. Jy kon sê: Hoor hier, ek sukkel, ek's moeg, ek's gedaan! En dan kom die ander ou terug. Dis onmiddellike terugvoer en dan voel jy sommer beter.'*
>
> [Translation]
> *'Because I think e-mail, to communicate via e-mail, is sort of lifeless communication. You know, you talk to a person, and then you have to wait before you receive a reply. But since Messenger it was nice. You could say: Listen, I am struggling, I'm tired, I'm exhausted! And the other person replies. That is immediate feedback, and then you immediately feel better.'*
>
> **Quote FG 4.38:**
>
> *'Die ander frustrasie was gewees dat, ek was in 'n span gewees waar my spanmaat bedags online was, en ek snags online was. So daar was tussen ons geen kommunikasie nie.'*
>
> [Translation]
> *'The other frustration was that, I was in a team where my teammate was online during the day, and I was online during the evening. So there was no communication between us.'*

It seemed that one participant broke the only-online communication rule specifically owing to other challenges brought about by asynchronous communication activities. When she did not receive e-mails from people who should have replied, she phoned and requested assistance so that she could proceed with the task. Refer to quote FG 4.24 on page 117.

While some participants experienced problems owing to the lack of response or the delays caused by asynchronous communication, one participant reacted to the large number of e-mails by deciding to open them selectively. He justified his decision as follows:

Quote FG 4.39:

'I send you an e-mail. You get it tomorrow at work. You send me some back. I'll get it tomorrow night. What's bad about that is that you would get thirty e-mails every evening. That's bad. And you don't know which ones to read and which ones to ignore.'

Some of the participants also felt that they could not express themselves clearly by means of asynchronous communication, especially when emotions were involved. That emotions were involved was not questioned by the participants. The nature of the module (a competitive game) and their dependence on one another brought true feelings and character to the surface. One of the participants verbalised this fact as follows:

Quote FG 4.40:

'Wanneer jy kommunikeer en jy's afhanklik van mekaar, en daar's iets waarvoor jy werk, en daar's geld betrokke, dan, outomaties is al hierdie emosies betrokke.'

[Translation]
'When you communicate and you are dependent on each other, and there's something that you work for, and there's money involved, then all these emotions are automatically involved.'

Another participant felt that it was problematic to express emotions via e-mail; therefore, he preferred face-to-face contact to e-mail. This is clear from the following quotation:

Quote FG 4.41:

'I would say face-to-face communication, for me, was emotional, because now I can say: Joe, please help me. Ja, ek het ook dieselfde probleem [Yes, I have the same problem]. So we can, we can motivate each other. So face-to-face, for me, is emotion. How do you express emotion on an e-mail? [sic] You can use the face and all those type of things [emoticons]*, but here, I can go and cry on his shoulder or whatever.'*

One complaint was that e-mail was too short, to the point, and very much like sending a text message or SMS[19]. The feeling was that it was easy to send e-mail if the receiver was unknown, but that you had to choose your words carefully. It was thought to be cognitively taxing to convey a message in such a manner that it would not be interpreted differently than intended. The participant who made this point said the following:

[19] Text message or SMS (short message service) is a message in text form sent by means of a cellular phone

Quote FG 4.42:

'With the SMS you just send the message, and you don't have to talk and talk and talk. You don't have to say: "Hallo, hoe gaan dit? Nee, dit gaan goed en met jou?" ["Hello, how are you? No, I'm fine, and how are you?"]. I think cognitively it's a very … um … taxing thing to do, because now you must really make sure that you are using your words and everything very economically. It's nice to do things like that when you don't know the person …'

Another participant complained that e-mail was not a suitable medium when he wanted to *'moan and groan'* or use abusive language; therefore, he felt that he could not express himself properly. He said:

Quote FG 4.43:

*'Also, you don't moan and groan and so *and^%$ lekker [*and^%$ so well] over an [sic] e-mail. Ja [yes], I cannot express myself over an e-mail. You know how to say it, but sometimes you just, you just need to go to somebody and just aflaai [offload]. … It's not spontaneous, the e-mail.'*

Another participant shared this feeling, and described e-mail as 'very clinical'. He said:

Quote FG 4.44:

'Ja [Yes], the e-mail is very clinical. I can use fifty emoticons. I will still not express myself.'

The feeling of not being able to express oneself through asynchronous means was also experienced by a third participant who said that it was much better to express oneself verbally, which he did when he wanted to complain about something. He said that he felt much better afterwards.

Quote FG 4.45:

'It's true. I remember that I phoned Pedro once, and "ons het altwee vir mekaar vertel: kyk, nou stop ons hierdie ding. Ons is nou moeg hiervoor. En ons het."' [We both told each other: look; now we put a stop to this thing. We don't have to take this any longer. And we did]. Ja [Yes], and afterwards you felt much better.'

Communication via e-mail was problematic to yet another participant, but for different reasons. This person felt that e-mail did not provide privacy, while e-mail text messages were also open to misinterpretation. Although he felt that he could express himself emotionally by using phrases such as '*I am going to kill Gérard now/ I am so frustrated/ I am really sick*', he did not want to make his feelings public. He did not want the rest of the tribe or the other participants to know how he felt. He also did not want to be misinterpreted. These are evident in the following quotation:

Quote FG 4.46:

'But I think one of the most important things, for me, about communicating on the e-mail, is the exposure element. Because I can imagine talking quite emotionally. I'm not familiar with using word [sic]. It's not because I only have the words, it's the exposure thing. I'm gonna kill Gérard now. I am so frustrated. I am really sick, but I don't want to tell it to the whole group. I'm not even talking about the whole tribe. I'm talking about the big scene, you know. We look at things that are the same differently…than the things that we do. That's why, most of the time, we don't write things because we are afraid that this is…this is evident and so on.'

A second participant expressed the fear of being misinterpreted. She said:

Quote FG 4.47:

'The thing is here, it's basically misinterpreted, like I can write 'really' in big letters and in brackets, and someone will understand it, and then it will be offence-like … But if I do it with my body language, then it won't be offending. So, there are all kinds of ways. Because of my body, you can look at the situation as if it is a positive situation and everything, where on my e-mail, it won't be the same.'

However, when *Yahoo! Messenger* (synchronous communication) was introduced, participants started to enjoy the online communication because they could communicate with individuals in a direct manner. They expressed the opinion that synchronous communication by means of *Yahoo! Messenger* did improve the team efforts of the tribes.

Quote FG 4.48:

'Maar van die Messenger was dit lekker. Jy kon sê: "Hoor hier, ek sukkel, ek's moeg, ek's gedaan!" en dan kom die ander ou terug. Dis onmiddellike terugvoer en dan voel jy sommer beter.'

[Translation]
'But with Messenger, it was nice. You could say: "Listen, I'm struggling, I'm tired, I'm exhausted", and the other person replies. This is immediate feedback, and then you immediately feel better.'

Another participant confirmed this advantage of synchronous communication:

Quote FG 4.49:

'Kind of a support from your colleagues that came in with the Messenger. Yahoo! Messenger.'

The introduction of the students to *Interwise*, an Internet tool for online conferencing that provided students with the opportunity to communicate synchronously, not only contributed to the group dynamic but also motivated students to further explore online communication. The fact that participants could hear each other changed their perception that online communication was 'lifeless'. While one participant described the Interwise session as one of the highlights of the module, another said that it contributed to the effectiveness of the other modes of online communication. One of

the students, Maria, described the *Interwise* session as a positive experience, despite the technical problems that she had. The following quotations are relevant:

Quote FG 4.50:

'I can't help to say, where they had that Interwise meeting we also did one evening. That was one of the highlights for me.'

Quote FG 4.51:

'Ek weet nie of julle dit ook so beleef het nie, maar van die Interwise-sessie af, het – dit was so 'n sinchroniese ding wat ons eers nie kon gedoen het nie – was daar vir my absolute motivering wat uitgekom het, en die hele groepdinamika. Dis hoe ek dit ervaar het, en ek dink die rede daarvoor sal wees, waar jy miskien by jou rekenaar sit en al daai goed, het hierdie ding skielik lewe gekry, en het jy jou medestudente se stemme gehoor.'

[Translation]
'I don't know if you experienced it like that as well, but since the Interwise session – that was a synchronous thing that we couldn't do at first – for me, there was absolute motivation that came to the fore, and the whole group dynamic. This is how I experienced it, and I think the reason for that will be, where you probably sat at your computer and all that stuff, this thing suddenly came to life, and you could hear the voices of your fellow students.'

Quote EM 4.20:

(Sorry for the delayed response due to technical problems)
I think the way the session was designed is great. One never stops learning as technology advanced to a greater degree. The preparations and the actual participation in the session made us learn to use technology and share the wonderful experience with other.\s.[sic] This was a lovely experience even with my family. The session worked more like a normal classroom with the interaction and communication to express ideas. The feel of listening to the instructor as if she was in the same room was really impressive. This was an experience of a life time [sic] even though there were a few technical problems.
Lovely experience
Maria

While asynchronous communication was described as 'clinical', another participant echoed Maria's positive experience by commenting that the *Interwise* session was more personal. She said as follows:

Quote FG 4.52:

'Warmer. Bietjie meer persoonlik, en dit voel nie dis jy teen die Internet nie. Dis bietjie jy en iemand anders teen die Internet. Dit gee meer persoonlikheid aan die ander persoon.'

[Translation]
'Warmer. A bit more personal and it doesn't feel it's you against the Internet. It is a little bit of you and someone else against the Internet. It enhances the presence of the other person.'

Although the participants had synchronous and asynchronous communication opportunities, the workload brought about by the course (especially the online

module) negatively affected their ability to communicate. Participants expressed difficulty coping with the workload, the huge number of messages, and time constraints.

4.4.3 Expressing finding it difficult to cope

When the *CyberSurfiver* module commenced, participants were attending classes on Thursday evenings, as they received a series of lessons in a particular subject. The amount of work they had to do was extreme. Two of the participants remarked as follows:

> **Quote FG 4.53:**
>
> *'When we started this course, we actually had two courses together. Am I right? We came together on Thursday evenings for (lecturer's) databases, and then, after about three or four weeks, they said that we are going to stop this because there is so much work in the Surfiver module.'*

> **Quote FG 4.54:**
>
> *'And apart of the module that we were doing, we still had a task on something else. Yes, on something completely different, which we worked in Dreamweaver and Access databases.'*

The workload of participants tripled due to being a master's student, having a family and being employed on a full-time basis. The workload of these students and the resulting time restrictions affected their ability to communicate and their commitment to the game. A participant explained the situation as follows:

> **Quote FG 4.55:**
>
> *'I just didn't read them* (e-mail)*. I just didn't have the time to even open them. If I recognised that it's something that's, you know, that's got to do with me. And then I think sometimes you missed important messages because you don't read all of them.'*

The issue of the large number of e-mail messages was addressed by Rachel in e-mail to her peers. The large number of e-mails urged her to ask her peers for information on the e-mail, rather than read all of them herself. She wrote:

> **Quote FG 4.56:**
>
> *Sorry I didn't write to you all this time, my parents are visiting us this [sic] days and I was running from here to there. When I opened my Outlook this again this [sic] morning, I was shocked to see 150 mails!!! In short I need your help. Could you please tell me what is this game that I see [sic] in several e-mails? …*
> *Rachel*

As opposed to Rachel and the participant mentioned above, one of the students felt the need to read all the e-mails, as she was of the opinion that they were informative. She said:

Quote FG 4.57:

'For me, in order to understand what's happening, I felt I had to open every e-mail and every message. I think it's a type of culture thing that you develop. I thought that I got a lot of information from reading some of the other e-mails. I think they didn't know that.'

By reading all e-mails, the above-mentioned participant obtained information on problems that could be expected, before she encountered them herself. She further stated:

Quote FG 4.58:

'Also you had people anticipating problems that you haven't encountered yet. You may be a bit slow, and somebody else is ahead of you and says: listen, I've got a really big problem with this scroll bar thing. So you would get a reply on a problem that you're going to run into before you even have the problem.'

Limited time not only prevented participants from reading e-mail or communicating with peers but also affected the quality of their assignments and the quality of time spent with family members. For these reasons, participants experienced the online module as a stressful event. One participant indicated that he repeatedly tried to succeed, but that he did not comprehend what he was doing owing to the pressure and time restrictions. He said:

Quote FG 4.59:

'… en ek dink jy't baie gedoen om te probeer en weer probeer maar jy't nie 'n clue wat het jy so gedoen [sic], omdat daar soveel tyddruk was.'

[Translation]
' … and I think you did a lot to try and try again, but you didn't have a clue of what you were doing, because it was a race against time.'

Hendrik, who sent the following e-mail to ask for information on assignments, also raised the issue of limited time. He wrote:

Quote EM 4.21:

Hi
*Our (*name of server*) server/system (???) is up and running again!!! Linda did you post us an update of the (rest) of the assignments?? What must we do with the URL of our own web site (Individual Assignment 2)? Maybe I am also DOF [dull] or maybe I missed something due to our network (which was down) and the fact that I dont [sic] have time to read all 75 plus e-mails (from this group alone!!) from the past three days.*
PLEASE HELP!!
Hendrik

Not having enough time to attend to *CyberSurfiver* assignments posed a problem for a number of other participants. The following three quotations are indicative of the effects that time restrictions and personal circumstances had on the efforts of participants:

Quote FG 4.60:

'First I went to my family, 'cause I was, all the time I was saying how much pressure… I needed time, because time was…'

Quote FG 4.61:

'So that was a lot of stress, because you knew that half of your mark now hung in the balance, because of something that doesn't work. But if it was only the mark as they put it - it was time that was going…'

Quote FG 4.62:

'So I don't want to, today, get into my own personal difficulties at that stage. It was horrendous. So it really meant rushing.'

In addition to time constraints and personal circumstances, which hampered efforts of participants to communicate and complete assignments, the use of English as the only official language during the *CyberSurfiver* game posed a problem.

4.4.4 Language

The module was presented in English, being the one common language which all students could understand and in which they could communicate. English was however not the first language or mother tongue of any of the students. The fact that they had to communicate in English challenged them to the extent that they wrote their e-mail messages by using word processing software. One participant explained that she used the electronic spelling and grammar function to check her e-mail messages before she copied and pasted them into her e-mail composer. This participant said:

Quote FG 4.63:

'Ek is seker daar is baie ander ouens wat dit ook doen, en ek is oortuig daarvan dat baie mense nie deelgeneem het op die e-pos nie, omdat die taal 'n probleem was, want teen die tyd wat jy jou goed getik het en ge-edit het, en weer getik het, en seker gemaak het die spelling is reg en seker gemaak die tenses is reg …'

[Translation]
'I am sure that there are many other people who do the same; and I'm convinced that many people did not participate via e-mail because language was a problem. Because by the time that you have typed and edited your stuff, and have typed it again, and have made sure the spelling is correct and have made sure the tenses are correct …'

The only other language that all participants, but one, could understand and speak to different degrees was Afrikaans. Therefore, Afrikaans was used by some participants when communicating via e-mail. The English-speaking participant pleaded with the others to communicate in English by sending the following e-mail:

Quote EM 4.22:

Sorry I didn't understand could you write it in English please?!
Rachel

The way in which the participant used punctuation (a question mark and an exclamation mark) might have indicated frustration with the language used by the other participants.

It seemed that a lack of English language skill made it difficult for some of the participants to communicate or to progress academically. One of the participants explicitly stated that the language barrier made them function on a lower cognitive level and impaired their ability to communicate. He felt that they could have communicated on a higher academic level if they were allowed to use their first languages, and if they had more time. He stated:

Quote FG 4.64:

'Ek dink ook dat 'n mens se akademiese deelname op 'n baie laer vlak, of baie minder is, as wat – ek dink jou akademiese deelname is baie minder op die e-pos as wat dit normaalweg sou wees.'

[Translation]
'I also think that a person's academic participation is on a much lower level, is far less than when – I think your academic participation is much less via e-mail compared to what it normally would be.'

This was confirmed by another participant who also stated that they would have communicated at a higher academic level had they more time and were they allowed to communicate in their first languages. He was also of the opinion that more issues of academic nature would have been discussed. Unfortunately, many of the e-mail messages contained cries for help, rather than meaningful academic discussion. The participant said:

Quote FG 4.65:

'… die kommunikasie, waar ek dink as, in die eerste plek dink ek dat as 'n mens dit in jou eerste taal gedoen het, en in die tweede plek dat jy 'n klein bietjie meer tyd gehad het, sou daar dieper, op 'n hoër vlak, akademiese goed uitgekom het. Dat 'n mens meer issues sou bespreek het, en meer akademiese kommunikasie gehad het. Want nou was die kommunikasie gebaseer op 'n help-asseblief-ek-gaan-versuip-vlak gewees.'

[Translation]
'… the communication, where I think if, in the first place, I think if one could do it in your first language and, in the second place, that if you had a little more time, deeper and higher academic stuff would have come out. That one would have discussed more issues, and would have had communication that was more academic. But now the communication was based on a help-me-please-I'm-drowning level.'

Although English was the common denominator, it was not the language of preference. One participant felt that she was disadvantaged by not being able to do the module in Afrikaans. She said:

Quote FG 4.66:

'I think it's a disadvantage. I think that's the …because 'specially, I think, because you had to do it in English, and you're Afrikaans.'

However, as the module proceeded, participants became less concerned about correct spelling and proper grammar usage. This was due to their heavy workload and associated deadlines. They had to submit assignments on Wednesdays and Sundays. One participant emphasised this change in attitude toward the use of proper English by stating that he later did not care whether he was discrediting his good name by using broken English, as he was trying to finish assignments in time.

Quote FG 4.67:

'Ek het later nie omgegee ek slaan my naam met 'n plank nie, wat ek vir jou sê, jy't nie tyd gehad – jy weet, ek het nie tyd gehad om te spell check nie, want jy het so geveg vir die Woensdag-, of die Sondagaand se ding, dat jy weet, jy't nie tyd gehad nie. Jy't net gesê hoe jy sê, en klaar.'

[Translation]
'Later on I did not care if I ruined my good name, what I am saying to you, you didn't have time – you know, I didn't have time to do a spelling check, because you struggled so hard for the Wednesday or the Sunday evening thing, that you know, you didn't have time. You just said it how you said it, and that's it.'

The problems experienced by participants with regard to language usage did not prevent them from sharing both positive and negative emotions via e-mail.

4.4.5 Sharing positive and negative emotions

One participant compared the emotions that she experienced (the highs and lows) to a roller coaster ride. She said:

Quote FG 4.68:

'I think, um, ek dink as ek my emosies wil beskryf in daardie tyd, was dit 'n absolute roller coaster. Daar was jou op-oomblikke, daar was jou af-oomblikke. …

So, vir my persoonlik, was dit roller coaster-oomblikke gewees. Oppe en affe regdeur, van die begin, tot en met einde. Maar uit retrospek [sic], as ek nou moet vergelyk, dan was die op vir my meer gewees as wat die af werklik was.'

[Translation]
'I think, um, I think if I wished to describe the emotions I had at the time, they were an absolute roller coaster. There were your moments of highs; there were your moments of lows. …So, for me personally, they were roller coaster moments. Highs and lows throughout, from the beginning, straight through, up to the end. But, in retrospect, if I had to compare, then the highs were more than the lows really were.'

Another participant experienced positive and negative emotions but, unlike the previous student, did not feel that these emotions could be described as highs and lows. According to him, he constantly experienced both positive and negative emotions. These feelings could, however, not be described as ambivalence, as he constantly was experiencing positive or negative emotions about a variety of things. He explained this as follows:

Quote FG 4.69:

'My belewenis daarvan was nie roller coaster gewees nie. Myne was maar konstant gewees. Een van frustrasie aan die negatiewe kant, en dan beangstheid daarmee saam, as gevolg van die goed wat hulle alles genoem het, maar ook die positiewe goed wat daarmee saam gaan. So ek het hierdie kontrasterende emosies beleef die heeltyd, maar op 'n konstante vlak – nie op en af die heeltyd nie.'

[Translation]
'My experiences were nothing like a roller coaster. Mine were rather constant. Experiences of frustration on the negative side, and then anxiety with that, because of all the stuff they've mentioned, but also positive things that go with that. So, I experienced these contrasting emotions all the time, but on a constant level – not like highs and lows all the time.'

One participant explained the positive-negative scenario as a continuous hit-and-run situation. Attaining the skills that were required of him was a positive experience that made him react with excitement; he contacted the lecturer immediately to tell her that his assignment was on the site. He explained:

Quote FG 4.70:

*'Wel, as ons byvoorbeeld, wat was daardie – Java – Ja, joe, ek het my alie afgesukkel, en dit is die heeltyd tref-en-trap, tref-en-trap, tref-en-trap. En, toe ek nou uitendelik sien hier hardloop hierdie oor my skerm, toe's dit soos in, ek is *and%$# opgewonde. … Ek het onmiddellik vir haar op Yahoo! Messenger gesê, kyk, my goed is op, en ek voel baie impressed met myself. So, dit was 'n absolute hoop vir my op daardie stadium…'*

[Translation]
*'Well, if we, for example, what was that – Java – Yes, whew! I found it very difficult, and all the time it was hit and run, hit and run, hit and run. And, then, eventually, when I saw it running on my screen, then, it was like, I was *and%$# excited. …I immediately told her on Yahoo! Messenger, look, my stuff is there, and I feel really impressed with myself. So, at that stage, it gave me such hope …'*

From the above quotations, it is clear that participants experienced a variety of emotions. How they communicated these emotions also differed from participant to participant. One participant explained that she found it difficult to express emotion via e-mail. She preferred face-to-face communication, as it was easier to express emotion by means of verbal and non-verbal communication behaviour. Face-to-face cooperative learning was important to this participant. She said:

> **Quote FG 4.71:**
>
> *'I would say face-to-face communication, for me, was emotional, because now I can say: Joe, please help me. … So we can, we can motivate each other. So face-to-face, for me, is emotion. How do you express emotion on an [sic] e-mail? You can use the face and all those type of things [emoticons], but here, I can go and cry on his shoulder or whatever. You want to work together with someone else in every task. Just to do it with someone else … to talk to them.'*

However, because of the only-online communication rule, participants were not supposed to communicate face-to-face. By using emoticons to transfer their feelings, participants could compensate for the lack of personal contact. The use of emoticons in *Yahoo! Messenger* assisted them in expressing themselves whilst they were communicating without seeing each other. This was confirmed by participants who said:

> **Quote FG 4.72:**
>
> *'Ons het baie van Yahoo! se emoticons gebruik.'*
>
> [Translation]
> *'We used many of Yahoo!'s emoticons.'*

> **Quote FG 4.73:**
>
> *'Ja, veral Yahoo! Messenger se emoticons. As ons iets gesê het, het ons gesmile, of jou wange het so dik gestaan van boosheid, en al daardie tipe van ding. So, ek dink in daardie opsig kon ons darem nog emosies ook deel – oordra – terwyl ons met mekaar kon kommunikeer. As jy 'n ding wou gil, dan kon jy hom gil met 'n emoticon.'*
>
> [Translation]
> *'Yes, especially the emoticons of Yahoo! Messenger. If we said something, we smiled, or you puffed out your cheeks of anger, and that kind of thing. So, I think, in that respect we might have shared – transferred - emotions too – while we were communicating. If you wished to shout something, you could shout it with an emoticon.'*

However, not all participants believed that e-mail with emoticons was a suitable medium for expressing emotion. They were of the opinion that e-mail allowed the use of only emoticons and words, was indirect and clinical, and did not allow of spontaneous reactions. The following quotations are relevant:

Quote FG 4.74:

'No, emoticons. We were supposed to use that for e-mails. Otherwise, you just type words, you only have words.'

Quote FG 4.75:

'Ja [Yes], the e-mail's very clinical. I can use fifty emoticons. I will still not express myself.'

Quote FG 4.76:

'Also, you don't moan and groan … so lekker [so well] over an e-mail [sic].'

Quote FG 4.77:

'Ja [Yes], I cannot express myself over an e-mail [sic]. You know how to say it, but sometimes you just, you just need to go to somebody and just aflaai [offload]. … It's not spontaneous, the e-mail.'

The main objection was that participants could not express themselves sufficiently via e-mail (including emoticons), as e-mail was not a communication medium that lent itself toward spontaneity. Despite this objection, many of the participants did use emoticons to express emotion. It seemed that they not only succeeded in transferring emotion but also found it a fun thing to do. The following examples showed that participants used emoticons to stress the messages that they wanted to convey. These emoticons did not belong to *Yahoo! Messenger*, but were composed of keyboard symbols and characters. Regarding the following e-mail message, Gérard used an emoticon to indicate humour:

Quote EM 4.23:

I agree about Telkom *– apparently the 'new' landline company is on the way! I'll be the 1st client!*
: -)
Gérard

Anette used emoticons when she apologetically asked assistance from the lecturer. She wrote:

Quote EM 4.24:

Sorry to bother you so much, Linda, but I found the quiz again! Seems I am clumsy in navigating around half-screens sitting on top of each other ; -) especially when stressed out by test conditions. :~) is that a sheep-face?
Anette

Mindy sent the following e-mail to Gérard, requesting help:

Quote EM 4.25:

Gérard jy sal meer detail as dit moet gee, want ek spook nog steeds om my website op Hagar te kry!! Ek verstaan nie lekker wat jy bedoel met die kommunikasie tussen Windows Explorer en Internet Explorer nie - kan jy asb weer verduidelik (of dalk prentjies teken :-))
Groetnis
Mindy

[Translation]
Gérard, you have to be more specific than that, because I'm still breaking my back trying to get my website unto [sic] Hagar!! I do not quite understand what you mean by communication between Windows Explorer and Internet Explorer – will you explain again, please (or could you draw some pictures :-))
Greetings
Mindy

Even when conversing by means of *Yahoo! Messenger,* some participants used keyboard-generated emoticons. Unfortunately, no dates were indicated on the printouts of the *Yahoo! Messenger* conversations. The following quotations were drawn from synchronous conversations in *Yahoo! Messenger* between the lecturer, Linda, and three participants on separate occasions, and indicated how emoticons were used in synchronous communication:

Quote EM 4.26:

Mindy (10:27:03 PM): Lekker slaap I-) [Translation: Sleep tight]
linda_van_ryneveld_sa (10:31:09 PM): =; Tata! [Translation: Goodbye]

Quote EM 4.27:

linda_van_ryneveld_sa (09:10:44 PM): She must be nice then;)
Rachel (09:10:58 PM): no need to say...:">

Quote EM 4.28:

Gérard (09:02:13 PM): Now where am I supposed to find out what a LMS is? Sounds dangerously close to PMS!! :-)
linda_van_ryneveld_sa (09:01:44 PM): LOL!
linda_van_ryneveld_sa (09:02:21 PM): And almost as much of a pain at times :)
Gérard (09:03:25 PM): I will look far and wide...
linda_van_ryneveld_sa (09:03:14 PM): Good!
Gérard (09:04:03 PM): Bye!
linda_van_ryneveld_sa (09:03:46 PM): Bye!

Sharing emotions (positive and negative) bound the participants together as a group. A feeling of closeness developed between tribe members. This bond was so strong at some stage that one of the participants felt it would be wrong to get rid of a person by voting her/him out, because they *'came a long way together'*. Despite the difficulties associated with asynchronous communication, the hard work required of participants during the module, and the long hours, one participant missed being able to speak to

people at one o'clock in the morning and to say 'good luck'. Altruistic viewpoints such as these are evident in the following quotations:

Quote FG 4.78:

'Ja, ek dink almal sal saamstem dat dit die module is waarin ons die hardste gewerk het, en dit was regtig – ekskuus vir die Engelse woord – exciting om eenuur in die oggend op die Net te gaan, en jy sien met Yahoo! Messenger, o!, daardie ou is ook online. En dan tik-tik-tik jy gou, en jy sê: sterkte. Ek mis dit…'

[Translation]
'Yes, I think everybody would agree that this was the module where we worked the hardest, and it was really – pardon the English word – exciting, to go online at one o'clock in the morning, and you see with Yahoo! Messenger, oh! that guy is also online. And then you quickly type, type, type, and you say: good luck. I miss that …'

Quote FG 4.79:

'Ons het op 'n stadium in ons groep gekom wat ek gevoel het ek kan nie iemand uitstem nie. Ons het te lank saamgekom en so, en ek het vir Linda ge-e-mail en gesê ek kan nie stem nie, en sy't gesê, wel, dan's dit 'n random storie.'

[Translation]
'We reached a point in our group where I felt I could not vote anyone out. We came a too long way together and so, and I e-mailed Linda and told her that I could not vote, and she said: Well, then it's a random story.'

It could be assumed that participants went through many emotional phases, and risk-taking behaviour was evident at more than one stage during the game. The extent of their emotions became obvious when participants were asked (during a focus group interview) to name the feelings that they experienced during the online module. Participants named the following feelings:

- Vreugde [Joy]
- Angstigheid [Anxiety]
- Keelvol [Fed up]
- Onsekerheid [Uncertainty]
- Moegheid [Tiredness]
- Kwaad [Anger]
- Arm, jy't arm gevoel [Poor, one felt poor]
- Jy't verlig gevoel [One felt relief]
- Ontnugter [Disillusioned]
- Lekker kry [Enjoyment]
- Verwondering [Amazement]
- Achievement
- Jaloesie [Jealousy]

- Ja, groepsgevoel [Yes, group feeling]
- Belonging
- Kompetisie [Competition]
- Alleenheid [Loneliness]

The variety of positive emotions, such as joy, amazement, and a feeling of belonging, most probably motivated students to succeed, and strengthened their internal drive and value system, while the different negative emotions experienced by participants, such as anxiety, anger, disillusionment and loneliness, could have contributed to a student failing or dropping out of the module. The third cluster of *Curative Factors* that could have contributed to the staying power of a student, namely the *Internal Drive and Value System*, will be discussed next.

4.5 Internal drive and value system

Factors that convinced students to work or try very hard and that made them determined to complete the module were included in this cluster. Definitions and criteria denoting the internal drive and value system are presented in Table 4.4. Criteria that indicated whether statements should be included in or excluded from such a cluster, are presented in the last two rows of Table 4.4.

Table 4.4: Denoting internal drive and value system

	Internal drive	Value system
Definitions	Drive: • *'… biological states of an organism and the stimuli leading or motivating it to a given behaviour'* (Williams 1983:57) • *'Also known as: need, impulse, tension, urge or appetite'* (Williams 1983:57) • *'To impel, goad, or force into some act or condition receiver; strong motivating urge or stimulus that incites an animal or person to action'* (Collier's Dictionary 1977:311). • *'An innate biologically determined urge. Determination and ambition'* (South African Concise Oxford Dictionary 2002:355). Internal: • *'Relating to or existing on the inside; relating to or existing in the mind of receiver'* (Collier's Dictionary 1977:537). • *'Of or situated on the inside. Experienced in one's mind'* (South African Concise Oxford Dictionary 2002:602).	Value: • *'Principles or standards of an individual or group; ideals receiver'* (Collier's Dictionary 1977:1103). • *'The regard that something is held to deserve; importance or worth'* (South African Concise Oxford Dictionary 2002:1298). System: • *'Group of things or parts related or combined in such a way as to form a unified or complex whole'* (Collier's Dictionary 1977:1013). • *'A complex whole; a set of things working together as a mechanism or interconnecting network'* (South African Concise Oxford Dictionary 2002:1189).
Criteria	Verbal expressions relating to coping.	Statements based on moral issues.
Criteria for inclusion in cluster	• Explanations of: • How students dealt with problems; • Willpower to succeed.	• Expressions of feelings of guilt. • Statements indicative of breaking rules. • Indications of assistance to each other.
Criteria for exclusion from cluster	Verbal expressions of not being able to cope.	It was difficult to exclude anything from this cluster, as the actions of participants were based on personal value systems, whether they were positive or negative, good or bad.

Internal drive is linked to coping. The South African Concise Oxford Dictionary (2002:254) defines *'cope'* as *'Deal effectively with something difficult'*, while Collier's Dictionary (1977:222) defines the term as *'be able to handle'*. When the participants were asked how they coped in the online environment, they were not sure how to respond at first. A participant then asked: *'Cope meaning what?'* The interviewer assisted by explaining as follows:

Quote FG 4.80:

'Okay, how could you do what was expected in that environment? How did you cope? Cope can also be emotionally. Coping could be behaviour and coping could be emotionally. It can be academically - how you managed your cognitive style. Time, finances, online environment.'

A participant responded by explaining the word 'cope' philosophically. He said:

Quote FG 4.81:

'I think it is a very loaded word. You know, it's really not a simplistic thing to me. I don't see it as only being able to academically survive. The communication was a problem, as well as the getting to know the environment, how to manoeuvre …'

It seemed that this participant understood the complexity of their experiences. Another participant, however, did not find the question on coping difficult to answer. S/he responded as follows:

Quote FG 4.82:

'No, I coped well; accept for the time and finances. That was something I could not cope with.'

Participants' responses during the focus group interviews revealed the following issues relating to their internal drive and value system:

- Negative emotions such as feeling agitated (frustration);
- Feeling threatened and exposed;
- Self-image and image;
- Positive descriptions of experience;
- Feedback from the lecturer;
- Negative experiences of module not being a game.

The word *'frustration'* was used by a number of participants to describe their feelings.

4.5.1 Negative emotions such as feeling agitated (frustration)

Their reasons for being frustrated varied from being unsure about what was expected of them, experiencing time restrictions, and feeling incompetent when tribal assignments had to be completed. One participant rationalised their feeling of frustration by saying that it was part of the job. However, in the case of the following participant, frustration turned into excitement when the problem was solved. He said:

Quote FG 4.83:

'Frustrasies het ingekom as jy nie presies geweet het wat van jou verwag word nie, maar soos wat jy deur dit geswoeg en gesweet het, en jy kom uiteindelik- veral as jy ernstige frustrasies gehad het-, en jy kom eventueel by daardie aha-belewenis uit, dan wil jy jubel van opgewondenheid, want jy't uiteindelik bereik wat jy aanvanklik nie mooi geweet het waarnatoe is ons nou oppad nie.'

[Translation]
'Frustrations emerged when you did not know exactly what was expected of you, but as you plodded along, and you eventually reached, especially if your frustrations were severe, and you eventually reached that aha! experience, then you wanted to shout of joy, because you eventually achieved what you initially did not understand well - the course we were taking.'

Time restrictions led to high levels of frustration. One participant felt that the only option was to be voted out. Another participant felt that one extra day to complete assignments would have made a difference to his frustration level and the possible attainment of outcomes set for assignments. They are quoted below:

Quote FG 4.84:

'Ek het op 'n stadium self gevoel dat as… jy werk so lank om iets reg te kry, en jy sukkel so, dat jy op 'n stadium kom, dan dink jy: luister, nou't ek genoeg gehad. Ek het nou genoeg tyd hieraan spandeer. Ek het nie langer ure om hieraan te spandeer nie. Mag hulle my nou maar asseblief net uit die span uit vote.'

[Translation]
'At one stage I felt that if … you work for so many hours to accomplish something, and it's such a struggle, you reach a stage that you think: listen, now I had enough! I've spent enough time on this. I don't have any more hours to spend on this. Please, they might just as well vote me out of the team.'

Quote FG 4.85:

'Dit het ongelooflike frustrasies veroorsaak. Jy weet jy moet sekere goed doen, en jy weet as jy net, net 'n dag ekstra tyd het om daaraan aandag te gee, of êrens 'n dummyboek te gaan opsoek, dan gaan jy dit dalk regkry, …'

[Translation]
It caused terrible frustrations. You knew you had to do certain things, and you knew if you only, only had one extra day to attend to those, or to go and look up a dummy book, then you might get it right, …'

While one participant philosophised that frustration was part of the job, another participant pinpointed tribal expectations versus lack of skill as the reason for being frustrated. They said the following:

Quote FG 4.86:

'There were times I got frustrated, ag [oh], but I could understand the frustration goes with, you know, that it's work…'

Quote FG 4.87:

'Maar daar was tribal, jy weet, tribal frustrations in die sin dat, jy weet dat jy voel, jy weet, jy't nie die ding reg gedoen nie, of jy weet nie hoe om dit te doen nie, en jy …'

[Translation]
'But there were tribal, you know, tribal frustrations in the sense that, you knew that you … didn't do the thing correctly, or you didn't know how to do it, and you …'

Not having the appropriate knowledge and skills with regard to software was expressed by another participant as a cause of frustration. She wrote:

Quote FG 4.88:

'So daar was tegniese goed van 'n ou gevra om dit te kan doen – ek wil amper vir jou sê software applications wat jy moes hanteer, wat ek geen, geen benul van gehad het nie. Dit was vir my 'n groot frustrasie.'

[Translation]
'So technical stuff was required of a person to be able to do that - I'm inclined to say software applications that you had to use that I knew nothing, nothing about. For me, that was a huge frustration.'

Another participant, who agreed to that, experienced frustration to such an extent that she wanted to be voted out. She said:

Quote FG 4.89:

'Dit was regtig 'n groot frustrasie, en dis, ek het op 'n stadium regtig gedink, en ek het ook gesê aan iemand: luister, vote my asseblief net uit. Ek het nou genoeg gespook…'

[Translation]
'It really was a big frustration, and it was, at one stage, I really thought, and I also told somebody: listen, just vote me out, please. I've struggled enough …'

Participants verbalised their frustrations in e-messages to the lecturer. Some of these messages were straightforward, while others were interspersed with comments that could be regarded as sarcasm or self-ridicule. Solina simply stated:

Quote EM 4.29:

Linda please help me I can't find games, and tasks for different tribes/groups. Frustrated.
Solina

Gérard's frustration was evident in the manner he ended his e-mail to Linda. He wrote:

Quote EM 4.30:

Hi Linda
… I have volunteered to do this, but I struggle to get hold of my group! I receive no response from them! I will do the website with the 2 people that I have contact with. …I basically want to know if it will be OK if we do not do the assignments with the rest of the group?
Frustrated greeting
Gérard

Gérard's frustration at not being able to locate some of his team members was apparent from the sarcastic undertone of another e-mail message that he sent to Linda. He wrote:

Quote EM 4.31:

Dear Linda (or anybody with a solution)
Did anybody leave the course/module? We have a few tribe members who seem to be 'gone'.
What do we do?
Gérard
Virtual Eves' only Adam

Barbara's e-mail message to Gérard, which was heavy with sarcasm and self-ridicule, showed her frustration at not being able to solve a problem. She later apologised to Gérard. These messages read as follows:

Quote EM 4.32:

I guess us ol' fashioned [sic] folks from Mshengu tribe (who still copy and paste using scissors and glue) would follow some of these things the long way round. No wonder it still is so blurry. The use of more and more acronyms hit me below the belt. Maybe we should have had beginner module posted to us over the holidays just to look into terms and concepts (and their meanings). Remember light holiday reading?
Barbara

Quote EM 4.33:

Hi Gérard
I wrote this when I was nice and frustrated yesterday after the Internet café was closed.
eGreetings ye all

Self-ridicule and sarcasm were apparent from the e-mail message that Mindy sent when she posted the result of an assignment. She included a sentence that expressed her frustration, and wrote down an alias (in the form of an Afrikaans expression) that characterised a female person who was feeling sorry for herself and wanted others to pity her. She wrote:

Quote EM 4.34:

From: Mindy
Hier is my poging - smaak my ek maak en is en voel nou sommer net klaar!!
Groetnis
Mindy (alias Martie Martelgat)

[Translation]
From: Mindy
This is my effort – seems to me I'm wrapping up, and is done, and feel done in!!
Regards
Mindy (alias Martha the Martyr)

Although she was denying it, sarcasm caused by frustration was also evident in Camilla's e-mail message with regard to her efforts to upload files onto the tribal site. She wrote:

Quote EM 4.35:

I have a lot of trouble uploading my files. Got it partially loaded in my own website. Could not get anything going on the Uno website. Sorry, Pedro. At least I did not mess the whole site up! http://www.geocities.com/... My pictures and CSS file did not kick in. Must I upload them separately too? The example of the screensaver did not go accross [sic] either! Any advice form [sic] the ones who managed to do it all?
No sarcasm intended at all!
Camilla

The lecturer's efforts to stimulate discussion and encourage e-communication led to more frustration among participants. The reaction of the participants seemed to relate to their workload and frustration levels at the time. Bob, seemingly annoyed, complained about a question thrown at them by the lecturer. The e-messages containing the question and Bob's reaction reads as follows:

Quote EM 4.36:

(Linda) The first person to respond to this e-mail with the correct answers will win a (real) reward on Thursday evening.
1. Could anyone explain what an IP address is?
2. How do you know what your IP address is at any given time?
Who will it be...?

Quote EM 4.37:

(Bob) I hate to cry foul here, but since our method of communication is asynchronous, this sort of thing is hardly fair. I was not online when the message was sent and so did'nt [sic] have a fair crack at answering it. This is a question some people can answer without Googling, but I assume it is now too late!
Bob

Rachel shared his frustration and responded with the following message:

Quote EM 4.38:

I agree with you and would like to add that we do the same thing in class and so the question is why do [sic] it at all? What is the importance of competitions?
Rachel

Linda had her reasons for posting questions such as these from time to time, and responded to the complaints as follows:

Quote EM 4.39:

Linda Van Ryneveld wrote:
About the fairness of the synchronicity of this particular competition ... Who ever said that anything in life was fair? ;-)

You will have to get used to my constant stirring. I usually stir because the list is so quiet, but if we have achieved one thing this week, it is the number of messages on the list.

During one of the focus group interviews, a participant said that he felt annoyed about these questions introduced by the lecturer throughout the module. He was of the opinion that she asked questions between main assignments just to frustrate them. He ignored some of the lesser assignments, as he regarded them as unnecessary and did not have the time to do them. He said:

Quote FG 4.90:

''n Ander ding wat ook, ek weet nie of julle dit so ervaar het nie, maar partykeer het Linda 'n ding ingegooi, soos haar heel eerste vraag oor body synchronism. Dan wat [sic] ek so hard besig om nou nog hierdie goed uit te figure wat sy gevra het, nou kom hierdie vraag. Dan voel ek, ag, wag nou net eers, dat ek net eers hierdie uitgesort kan kry, byvoorbeeld: wat's 'n IP-adres? Jy weet, sulke tipe van goed wat ek gevoel het, ek het nie krag hiervoor nie, en uhm, wat ek dan gedoen het, is ek storm op 'n search, en ek soek iets oor 'n IP-adres. Ek lees hom nie eers behoorlik nie. Ek copy en ek paste net. Daar's my weergawe, en ek gaan aan.'

[Translation]
'Another thing that also, I don't know if you experienced it this way, but sometimes Linda threw a thing at us, like her first question on body synchronism. At that moment, I was still struggling to figure out this stuff that she wanted; now this question appears. Then I feel, oh, just hold your horses, so that I can first sort this out. For example: What's an IP address? You know, this sort of thing that I felt, I do not have the strength for this, and um, then what I did, I quickly did a search, and I looked for something about an IP address. I didn't even read it properly. I only copied and pasted. There's my version, and I go on.'

Another participant ignored the questions that he could not answer and said that he did not have the time or energy to respond. He also thought that it was the intention of the lecturer to irritate them. He wrote:

Quote FG 4.91:

'Ek het half gevoel dit is dalk bedoel vir mens om 'n frustrasie te wees [sic], en ek het dit dienooreenkomstig hanteer. Ek het na die vraag gekyk, en as ek nie op die oomblik die antwoord kon sien nie, dan het ek dit doodeenvoudig geïgnoreer, want ek het net gevoel dit was dalk haar doel om ons te irriteer daarmee, en ons te side track van wat ons mee besig is, en regtig, tyd was 'n ongelooflike probleem gewees. Want as 'n ou, ek werk op deadlines, en dan werk ek reeds vyftien uur 'n dag. Dan het ek nie nog tyd om agt uur die aand, of van ses in die aand tot ses in die oggend op die Internet te wees om te sukkel om goed reg te kry nie.'

[Translation]
'I sort of felt maybe it was meant to be a frustration to a person, and I treated it accordingly. I looked at the question, and if I couldn't see the answer that very minute, then I plainly and simply ignored it, because I just felt it probably was her intention to irritate us with that, and to get us sidetracked from what we were doing, and really, time was an unbelievable problem. Because, if a guy, I have to meet deadlines, and then I have already worked fifteen hours a day. Then I did not have the time to be on the Internet from eight o'clock in the evening, or from six in the evening till six in the morning, to try and get things right.

Not only did some participants experience frustration but they also felt threatened and exposed.

4.5.2 Feeling threatened and exposed

At the second focus group interview, participants were requested to verbalise the feelings that they experienced during the online module. The following quotations explained that participants felt threatened and exposed:

> **Quote FG 4.92:**
>
> *'Definitely uncertainty. About not knowing what was going to happen. Never having done this before.'*
>
> **Quote FG 4.93:**
>
> *'And stressed. I felt stressed initially.'*
>
> **Quote FG 4.94:**
>
> *'Sort of being afraid that I'm not going to cope. I won't be able to do this thing. Feeling afraid that you can't cope.'*
>
> **Quote FG 4.95:**
>
> *'Ja [yes], isolation. The isolation is tremendous. Especially late at night'*
>
> **Quote FG 4.96:**
>
> *'I think one feel exposed when you are writing the e-mails and even the letters, because you have to put more thought into what you're doing, because you feel maybe I'm asking a stupid question or I'm just not understanding the problem, so now I'm asking somebody else for the answer, and, so. I had a feeling, you're kind of feeling exposed as well.'*
>
> **Quote FG 4.97:**
>
> *'I think initially, I was a lurker, and later on, you started to – ja [yes], like Camilla said, to expose yourself. I'm going to make a fool out of myself by doing something or saying something …'*
> **[My emphasis]**

Refer to Quote FG 4.32 as well. Emotions such as anxiety, stress, and fear (also fear of making a fool of oneself) were brought about by the manner in which the module was presented. Participants were required to work in teams and had to interact, as the module was hosted in the format of a game (*CyberSurfiver*). Factors such as diverse personalities and differences in personal experience and background might have contributed to the high level of anxiety experienced by participants. Some felt that they did not know enough or did not possess the necessary skills to participate in a tribe. One of the participants indicated that her anxiety was caused by many things. She said:

Quote FG 4.98:

'Ek dink een van die dinge wat ek moet sê, is: dit het my baie angstig gemaak. Daar's baie wat my vreeslike angs gegee het.'

[Translation]
'I think one of the things that I should say, is - it made me very anxious. There were many (things) that made me (feel) terribly afraid.'

Another participant felt that her anxiety was caused by feelings of incompetence and the fact that team members were often unavailable. She explained as follows:

Quote FG 4.99:

'Veral die spanwerk. Jy weet, dis baie, het vir my angstig gemaak, want ek was altyd bang, jy weet, ek was nie competent genoeg om in die span te kan deelneem nie, .., jy weet, dit was vir my baie moeilik. Dit is een ding, en die ander ding wat ek ook wil sê, is, ek dink hierdie ding wat mens ook angstig gemaak het, is jou spanlede was nie altyd – of jou tribe members – was nie altyd aan diens of op lyn gewees wanneer…. So ons het baie meer cross-tribal relationships gehad soos wat jy inter-tribal relationships geontwyk het, bloot-en-al vir die tye wat 'n mens op lyn was. Maar daar was tribal, jy weet, tribal frustration in die sin dat, jy weet, dat jy voel, jy weet, jy't nie die ding reg gedoen nie, of jy weet nie hoe om dit te doen nie, …'

[Translation]
'Especially, teamwork. You know, stacks of, it made me anxious, because I was afraid, you know, I wasn't competent enough to participate in the team, … you know, for me, it was very difficult. That was the one thing, and the other thing I want to say is, I think what made one anxious, your team members were not always – or the members of your tribe – were not always working or online when … So, we had many more cross-tribal relationships as we dodged inter-tribal relationships, just because you were online. But there was tribal, you know, tribal frustration in the sense that, you know, you feel, you know, you didn't do it correctly, or you don't know how to do it, …'

The unknown factor (the unknown nature of the module) enhanced the anxiety of a participant who said that previous knowledge and experience were not applicable to the *CyberSurfiver* learning environment. She also expressed a fear of exposing her feeling of incompetence. She said:

Quote FG 4.100:

''n Groot bron van angs vir my was dat die goed so geweldig nuut en anders was met die tweerigting – jou res van jou vorige lewe se kennis help jou niks. Jy voel jy sit hierso, totaal nakend en sukkel. Jy't niks wat jou bietjie half hoop gee in jou onkunde nie. En die feit dat jy 'n span is, dat jou dommigheid maak, jy weet, is so ontmasker. Jy kan nie soort van soos 'n brief skryf wat net jy en die ou wat dit nasien dit sien, en nie almal sien watse nonsens vang jy aan nie. Ek dink dis wat die angs bring.'

[Translation]
'For me, a big cause for concern was that everything was so dreadfully new and different with the two-way – all the knowledge from your previous life meant nothing. You feel you are sitting here – stark naked and struggling. You have nothing that give you even a bit of hope while you are in the dark. And the fact that you're a team, that your stupidity, you know, is so exposed. You can't write

something such as a letter so that only you and the person that is marking it can see what nonsense you've been up to. I think that's making you anxious.'

The fear of exposing oneself, especially by communicating feelings via e-mail, affected the communication between participants. One participant specifically said that she was unable to convey her true feelings, as she was afraid that she would be misinterpreted. She also did not want the whole group to know how she felt. She said:

Quote FG 4.101:

'But I think one of the most important things, for me, about communicating on the e-mail, is the exposure element. Because I can imagine talking quite emotionally. … It is not because I only have the words, it is the exposure thing. I'm going to kill Gérard now. I am so frustrated. I am really sick, but I don't want to tell it to the whole group. I'm not even talking about the whole tribe. I'm talking about the big scene, you know.'

Participants were also aware that people had different ideas, and were afraid that they might be misinterpreted. For this reason, some decided not to participate in e-conversations. This is evident in the following quotation:

Quote FG 4.102:

'We look at things that are the same differently…than the things that we do. That's why, most of the time, we don't write things because we are afraid that this is…this is evident and so on. The thing is here, it's basically misinterpreted, like I can write 'really' in big letters and in brackets, and someone will understand it, and then it will be offence like -. But if I do it with my body language, then it won't be offending. So, there are all kinds of ways. Because of my body, you can look at the situation as if it is a positive situation and everything, where on my e-mail, it won't be the same.'

Feeling scared of being 'exposed' also related to the self-image/image of participants. Some felt they had an image to uphold and should not be caught using English grammar incorrectly, as they were master's students. One particular participant indicated typing her e-mail message in MSWord, spell checking it, and then pasting it onto the e-mail composer. She explained as follows:

Quote FG 4.103:

'Jy weet nie wat weet die ander nie, en jy weet jy weet te min, maar jy weet nie of hulle ook so min weet of minder of meer weet as jy nie. Ek persoonlik, het eers my goed in Word getik, en dit dan gespell check, en dit dan gecut en paste... jy moet onthou, ons is darem M-studente, né. Jy kan mos nou nie jou "is's" en "am's" en "are's" verkeerdom sit nie.'

[Translation]
'You don't know what the others know, and you know you don't know enough, but you do not know if they also know as little, or more, or less than you. I, personally, typed my stuff in Word first and then I did a spelling check, and then I

cut and pasted it… you must remember, we are MA students, after all. Why, you cannot put your is's and am's and are's the wrong way round.'

Also refer to Quote FG 4.63 (Subsection 4.4.4). A second participant also followed these measures of typing in MSWord and using the MSWord spellchecker before sending e-messages. However, unlike the previous participant, this student was convinced that her peers did not use the spellchecker, but were able to send their messages immediately. The following quotation was indicative of just how exposed she felt owing to the lack of information on the skills of her peers. She said:

Quote FG 4.104:

'The online Telkom messenger, for me, it was a checking thing with my spelling mistakes. So I was using Word, and while I'm on Word, checking my spelling mistakes and then cut and paste, where the others were writing to the messenger right away.'

Another participant described the language handicap as a disadvantage and a dilemma. She said:

Quote FG 4.105:

'Not exposed. It's a dilemma. … I think it's a disadvantage. I think that's the … because 'specially, I think, because you had to do it in English, and you're Afrikaans.'

Initially, participants were concerned about their image as Magister Artium (MA) students, their ability to express themselves in English, as well as the possibility of losing face, but as time went by and pressure increased with regard to deadlines and assignments, 'surviving' the *CyberSurfiver* module became priority. One participant mentioned that she no longer had the time to use the spellchecker, and her priority changed to meeting deadlines on Wednesday and Sunday evenings. She said:

Quote FG 4.106:

'Jy't hierdie ontsettende – want dis ook waar die angstigheid inkom. Jy's bang jy slaan jou naam met 'n plank. Ek het later nie omgegee ek slaan my naam met 'n plank nie, want ek vir jou sê [sic], jy't nie tyd gehad – jy weet, ek het nie tyd gehad om te spell check nie, want jy het so geveg vir die Woensdag-, of die Sondagaand se ding, dat jy weet, jy't nie tyd gehad nie. Jy't net gesê hoe jy sê, en klaar.'

[Translation]
'You have this terrible – because this is where the anxiety comes in. You're afraid of ruining your good name. Later on I didn't care if I was ruining my good name, what I'm saying to you, you didn't have time – you know, I didn't have time to do a spelling check, because you struggled so hard to do the Wednesday or the Sunday evening thing, that you know, you didn't have time. You just said it how you said it, and that's it.'

Interesting though, was the manner in which some participants attempted to cope with their situation by employing humour. Camilla sent the following e-mail to inform the lecturer of her effort with regard to an assignment:

Quote EM 4.40:

Here is my best effort. Three barriers prevented a higher score.
1. Poor eye-hand coordination. (a little bit to do, also, with growing up in the precyber-era) [sic]
2. Inadequate breeding programme. (I don't have a child who can help me:-)
3. Environmental factors. (None of the children in my school can improve on my score:-)
Camilla

The following e-messages were indicative of how humour was used as a coping mechanism and as an antidote to anxiety and stress. Participants discussed rewarding either a crown or a pumpkin for excellence or stupidity. Joanita and Camilla had the following e-mail conversation that could be accessed by all participants:

Quote EM 4.41:

At our school we have a pumpkin (and a crown). The pumpkin is given to any person who made a really stupid mistake. The crown is given to any person who went out of his/her way to help another one. The person who has the pumpkin or crown may decide whom to give it next. Until that stage it stays his/hers. Let's start this tradition. I think some of you will know to whom the crown should go, then please do so (remember - only one crown and one pumpkin). Let it be the first person to award the crown. The pumpkin is not difficult. I receive it for being really very, very stupid. You can look at the attachment to see it. If you know of any other really stupid mistake, please let me know. It is not good for my self-esteem to keep it for too long!
Joanita

Quote EM 4.42:

Joanita, You can't just get it without confessing what the stupid mistake was that you made. If you get if for just being stupid, it implies mental handicap, which is a disability. For that you may not be penalised as these people have rights too! I think I deserve it more for being unable to open and creat [sic] the file to upload my web goodies. It is really a simple task, which left a large dent in my self-esteem. At some stage I considered taking up crocheting or some other suitable hobby for someone my age.
Camilla
Ps. This was the quote of the day - very appropriate for all of us who are battle weary!
An invincible determination can accomplish almost anything and in this lays the great distinction between great men and little men. Thomas Fuller (1608-1661, British Clergyman, Author)

Note the support and encouragement given by Camilla in the form of a 'quotation of the day' about accomplishments. The following day an enquiry was made with regard to the location of the pumpkin, as Joanita did something that convinced her that she should have the pumpkin. She sent the following e-mail:

Quote EM 4.43:

Subject: [eLearn2002] Waar's daardie pampoen? [Translation] *Where's that pumpkin?*
Camilla,
Do you have the pumpkin? I just won it! So please forward it to the shameful new owner.
Joanita
Oh, what did I do?
I created a separate group for tribe 3. (nice idea!)
I then forgot the password (nothing new!) and locked myself out because I forgot to put my own name on the members list and made it a closed group!

Joanita also conversed with Bob via e-mail about their inability to perform certain tasks. At the end of the conversation, a sheepish kind of humour came to the fore. Their e-conversation is quoted below:

Quote EM 4.44:

(Joanita) Am I the only dof [dull] one?

Quote EM 4.45:

(Bob) This is a nightmare. This is the point!

Quote EM 4.46:

(Joanita) I played the game – mainly because it was the easiest part. I struggle to get the game's Top 20 list 'active'. It seems as though the link is not working. Will someone please tell me how to do it? 'Help' did not help.

Quote EM 4.47:

(Joanita) Then I tried to find my 'shelter' on the island to figure out where we are suppose [sic] to port our 'findings' on ASP – but they were not yet 'activated'.

Quote EM 4.48:

(Bob) Now what now?

Quote EM 4.49:

(Joanita) It is too early to make a decision on what tool/service/product we are going to review. I thought the idea was to find as many as possible and not to review only one or two? How are we suppose [sic] to present it? Online? One of the famous show and tell power point [sic] efforts?... Just grab one end and do it I just took the first thing that came along!

Quote EM 4.50:

(Bob) ***Do what?...***
What tribal assignments?
(Joanita) These are in the PDF docs you should have received a few days ago!
(Bob) Thanks, what are we suppose [sic] to discuss in the chatroom?
(Joanita?) Beats me! I am really a bit 'dof' [dull] and very 'deurmekaar' [confused] or are we suppose [sic] to feel this way?
(Bob) Keep on smiling! Ha, ha
Good luck!
Bob

By having these conversations online, exposing their lack of skills, and asking assistance, participants indicated their desire to be successful. In some instances, the desire to succeed could be related to self-image, while some participants wished to succeed because they were concerned about how other people perceived them.

4.5.3 Self-image and image

During one of the focus group interviews, participants were asked about the way they handled the difficulties they mentioned. Some students were self-motivated and their internal drive overshadowed any negative experiences they had. One student simply wanted to do well, so he stayed up until he understood the task and its requirements. He said:

> **Quote FG 4.107:**
>
> *'Ja [Yes], I knew I wanted to have good marks for this module as well, so even if I had to stay up until three or four o'clock or whatever, until I understood the task or whatever, I just had to do it. That was my internal motivation.'*

Some participants achieved success because they had the desire to succeed. Others prepared for the module by taking additional courses, while personal characteristics such as determination and perseverance also led to success. All these aspects relate to inner drive, self-image and self-motivation. One of the participants simply said:

> **Quote FG 4.108:**
>
> *'You know you just had to.'*

As they wished to succeed, three participants prepared for the online module by taking a course in HTML. This course was not part of the master's degree for which they were registered. Taking the course together showed a degree of camaraderie. One of them said:

> **Quote FG 4.109:**
>
> *'Three of us, that's me and Karel and Camilla, did an HTML course in April, before this, and it helped tremendously. We were very glad that we did it.'*

Some of the participants were convinced that people completed the module because they persevered in their efforts to succeed. The following quotations are relevant:

> **Quote FG 4.110:**
>
> *'I think maybe one thing, in the end, say, people that finish, that complete something, are people who don't want to – it's not people who give up. … They don't give up on anything.'*

Quote FG 4.111:

'Also, by the time you wanted to bail [sic], you've done so much, it's really not worth it. You will not give it up. You will not give it up. You put in too much. Not after doing all of that, I will not give it up and have to do it all again this year.'

Small achievements served as internal motivation, as was described by one of the participants who compared his online experiences to a game of golf:

Quote FG 4.112:

'Yes. You know, if I play golf, and I play eighteen holes, in the first sixteen holes, I play very poor. I hit away twenty balls. Very poor. Then I play one hole excellent, and I get the birdie or something. That made me come back and play golf again next time. That's the way golf is like. So if you sit there and you struggle and struggle for two days or whatever, and then suddenly you get the scroll bar working…it's like a drug. Ja [Yes], it's a reward that you get. But it's not a reward from other people. No, no. It's a reward from yourself. I can do it. The technical thing working – Ja [Yes], I didn't give up the marks or anything I had there.'

Being able to achieve something and show it to her family and friends served as motivation for another participant. The feedback that she received from friends and family served as external motivation. She said:

Quote FG 4.113:

'I think, for me, it was to show my kids what their ma could do. I'm bragging about it. Have a look. Look at this. That's true. … No, I sent my e-mail of my web site address to a lot of people, so everyone could go and look. It was also about the external feedback that you got back, it was important that it was external. External reward.'

Some of the participants indicated that they had an image to uphold. They wished to comply with the expectations of society with regard to people who were furthering their studies, and wanted to fulfil their functions as role models within their professions.

Quote FG 4.114:

'… jy moet onthou, ons is darem M-studente, né. Jy kan mos nou nie jou "is" en "am's" en "are's" verkeerdom sit nie.'

[Translation]
'… you must remember we are MA students, aren't we? You cannot put your is's and am's and are's the wrong way round.'

Participants also had positive experiences of the online module, and these experiences motivated them to stay on and complete the course.

4.5.4 Positive descriptions of experience

The participation of students in the synchronous *Interwise* session during the second half of the module was such an experience. It not only motivated individual students, but also served to enhance the dynamic of the group. One participant said:

> **Quote FG 4.115:**
>
> *'Ek weet nie of julle dit ook so beleef het nie, maar van die Interwise sessie af, het – dit was so 'n sinchroniese ding wat ons eers nie kon gedoen het nie – was daar vir my absolute motivering wat uitgekom het, en die hele groepdinamika.'*
>
> [Translation]
> *'I don't know if you experienced it like that as well, but since the Interwise session – that was a synchronous thing which we couldn't do at first – for me, there was absolute motivation that came to the fore, and the whole group dynamic.'*

Another participant echoed this point of view by saying:

> **Quote FG 4.116:**
>
> *'Positief, ja, asof daar gemotiveerdheid gekom het onder die medestudente. Ons het selfs, daarna het ons deur Messenger gesels. Ja, maar daai was nou half 'n turning point.'*
>
> [Translation]
> *'Positive, yes, as if fellow students became motivated. We even, after that we had discussions through Messenger. Yes, but that was kind of a turning point.'*

A third participant confirmed the motivating influence of synchronous activities. He said:

> **Quote FG 4.117:**
>
> *'So, ek wil amper vir jou sê, van ouens wat 'n mens op 'n natuurlike basis oor die loop van die kursus voorheen al ondersteuning gekry het, het jy nou ondersteuning gekry. En daar was niks lekkerder, soos iemand al gesê het, om drie-uur in die oggend te sit en te weet daar's vier ander ouens ook daar.'*
>
> [Translation]
> *'So, I'm inclined to tell you, from guys who supported you before on a natural basis during the course, (from them) you have now received support. And there was nothing more exciting, as somebody already had said, to be up and about at three o'clock in the morning and to know that four other guys were there as well.'*

Maria sent the following e-mail message to the lecturer after the *Interwise* session:

> **Quote EM 4.51:**
>
> *The session worked more like a normal classroom with the interaction and communication to express ideas. The feel of listening to the instructor as if she was*

in the same room was really impressive. This was an experience of a life time [sic] even though there were a few technical problems.
Lovely experience
Maria

Participants experienced spontaneous support from different sources throughout the module. Although they were divided on the main sources of support, some felt that they received a huge amount of support via the synchronous discussion tool *Yahoo! Messenger*. One participant made the following remark during the second focus group interview:

Quote FG 4.118:

'Kind of a support from your colleagues that came in with the Messenger.'

Another participant also said that they experienced *Yahoo! Messenger* as a supportive environment. He said:

Quote FG 4.119:

'Ek dink jy het tog gevoel die mense support jou.'

[Translation]
'I think though, you felt people supported you.'

One participant found *WebCT* to be helpful with regard to communication. He said:

Quote FG 4.120:

'… totdat ons op WebCT kom, toe dag ek, ah, nou kan ek sien wat ek nie kon sien nie en toe't ek nou soort van 'n tweede asem geskep.'

[Translation]
'… when we were on WebCT, I thought, ah, now I can see what I couldn't see, and then I sort of got a second wind.'

Fellow students, of whom some were also colleagues at work, supported each other. As their programmes did not necessarily synchronise, they could not give academic support, but they supported each other emotionally. The following quotations have reference:

Quote FG 4.121:

'I had nice support, because you know, Hendrik is … um … you know, we work in offices next to each other. Moral support, but not – we didn't have any time – we, our programmes didn't synchronise. We never had time to help each other academically, but you know, you could make a remark.'

Hendrik replied to this by saying:

Quote FG 4.122:

'Yes, yes. And that, I think, you know, kind of bound us together, and that was a support for us. Because my sole support came just purely from my colleagues. From the people I studied with. Nothing and nobody at home knows anything.'

Bob acknowledged that he received support from an anonymous person, but was very secretive about this person. He 'confessed' to 'illegal' behaviour, but rationalised the illegitimacy by saying that it could happen in a normal classroom situation as well. The relevant e-mail message read as follows:

Quote EM 4.52:

I got a few messages … under the table, but this was a plus for me … besides which this happens in a 'normal' classroom as well.
Good points
Bob

It was possible that Bob received this 'under-the-table' assistance from Gérard who was probably not a member of his tribe. This could be inferred from the following e-mail sent by Gérard:

Quote EM 4.53:

I loved being able to send messages 'under the table'!!
Gérard

However, participants received support from not only fellow students (tribe members or members of other tribes) and colleagues but also external sources such as friends and family members. The following examples explain the support given by friends and family.

Rachel said she had a friend in another country, and they had continuous e-mail conversations. Participants had to design websites, and use the FTP function to publish their assignments onto these sites. Her friend could access her site and gave her constant support. She said:

Quote FG 4.123:

'We got support from outside. I used to e-mail my friend back home in (country) constantly. He used to support me.'

Another participant received support from her daughter who helped her type assignments. She commented:

Quote FG 4.124:

'I sometimes used my daughter. … Ja [Yes], I needed someone to…type fast, because my typing is too slow.'

This participant also explained that she received further assistance from her daughter who was interested in e-games. Her daughter showed her how to play these games so that she could obtain immunity. She explained as follows:

Quote FG 4.125:

'I got – again – support from my daughter, but because she enjoyed it. What do you call it when you can get immunity? You had to download a game, for example, and I didn't even want to do it, but because she was interested in it; she did it, and she showed me how to do it.'

Another participant told his family that he experienced a huge amount of pressure and that he needed time. They gave him full support. Refer to Quote FG 4.60 (Subsection 4.4.3). One of the participants mentioned that the concern of family members about her health encouraged her to persevere and to complete assignments. She said:

Quote FG 4.126:

'I had flu. The flu developed into pneumonia, and my kids were mad at me, because I was getting up at night. They were telling me: "Ma, you're going to die". But you know, there was no choice. You had to do it … I did it.'

The extent of support given to participants by the lecturer of the module served as motivating factor.

4.5.5 Feedback from the lecturer

Support from the lecturer was also provided. Participants concurred that it was as if the lecturer was online *'all the time'*. They said:

Quote FG 4.127:

'She was there all the time. She was there all the time. So that she knew what she was doing. It was amazing.'

Quote FG 4.128:

'… sometimes in the evening at eleven or twelve, when you click on your Messenger, and then Linda's also on. She was on all the time, I think. I think she never went off. You will just say: Hello; and then she will say back: Hello, how are you? And that just helps. The fact that you knew she was … Well, I've written a whole article on Linda's support, so I won't repeat the whole article here.'

The skill showed by the lecturer when she communicated with participants, whether it was related to problems that they experienced or to give moral support, impressed the participants. They felt that she was *'in control all the time'*. One participant specifically mentioned the fact that the lecturer always gave feedback. Another

participant noted the promptness of the lecturer's reply. The following quotations have reference:

Quote FG 4.129:

'Ja [Yes]. The fact that she always gave feedback. Ja [Yes], and if things went wrong, I don't know how you guys experienced it, I was really studying the text of the messages, and not the 'asking myself how I felt about it'.'

Quote FG 4.130:

'I mean what she was doing, what type of tasks she gave us. She was in control all the time of it [sic].'

The lecturer communicated with the participants individually via e-mail and synchronously via *Yahoo! Messenger*. The following excerpts from e-messages and quotations from focus group transcripts give an overview of the extent of the support given by the lecturer to students. A short description accompanies each quotation or excerpt. One participant described the support given by the lecturer as follows:

Quote FG 4.131:

'Yes, it started off the first week. We did a task, and then she saw us, she handed out a – I can't remember – a bottle of Game or something. And every time you had to do something, then she rewarded you with stuff. And she had all these – what do you call these icons of instant smiles, smiley faces and everything. If she sent you an e-mail [sic], she said well done. I said at one time that I had the highest score. She sent me an e-mail [sic] and said well done Pedro, I'm so proud of you, with a smiley face and whatever. Those kinds of things.'

The following is an example of positive feedback given by Linda to Bob and *Tribe e-Learn-a-long*:

Quote EM 4.54:

Wow, this is a quite a nice start, Bob and Tribe e-Learn-a-long! Already Anneli has come across a couple of nice freebies. Now get the rest of your tam [sic] to submit some more …
EGreetings
Linda

The following e-mail sent by the lecturer to the participants in recognition of their efforts also served as an example of how she supported them online. She wrote:

Quote EM 4.55:

Linda_van_Ryneveld_sa@y...> wrote:
so far to all of those whose sites are up and running! I recognise the fact that this has been a first for many of you and are so proud of you for getting it in such a short space of time.
Keep up the good work!
L (Linda)

A few of the participants noted how promptly the lecturer replied to e-mail messages. One said:

Quote FG 4.132:

'Just you didn't have to wait. Even if you sent her an e-mail, you could know the next time you checked in, you would be a reply [sic].'

The following e-mail conversation indicated how prompt and efficient the lecturer was in replying to Hendrik's e-mail message, which was sent at 12:26. Linda's reply was sent at 12:37, and she systematically answered each of his questions.

Quote EM 4.56:

From: Linda
Subject: Re: [eLearn2002] Individual Assignment 2
.....ac.za 07/26/02 12:26PM >>>
(Hendrik) Hi our (UP) server/system (???) is up and running again!!!
(Linda) That's great!
(Hendrik) Linda did you post us an update of the (rest) of the assignments??
(Linda) Not yet, I will put them up tomorrow once all the other assignments are in (the cut-off time is 12:00). I think it is fair to give all the tribes the same amount of time.
(Hendrik) What must we do with the URL of our own web site (Individual Assignment 2)?
(Linda) You must mail the address to Elearn2002 so that everyone else can also go and have a look at your masterpiece! One week down, 5 to go!
eGreetings
L

The lecturer supported the participants by offering assistance when she noted that they were not quite on track. The following e-mail message is proof of such an occasion:

Quote EM 4.57:

From: Linda
Subject: [Elearn2002] Re: What do we need for Thurs?
Gérard, I am not sure whether you don't understand what is expected of you, or whether you simply haven't read the assignment file that was uploaded to Yahoo Groups last Thursday? If you did read through the assignments that was posted [sic] under 'FILES' in your Elearn2002 Yahoo Group and you still experience problems, you are welcome to e-mail me personally so that I can talk you through the assignments.
This offer stands for all the other 'Suvivors' [sic] as well. BUT, please note that time is running out ....!
EGreetings
Linda

One participant went so far as to phone the lecturer to ask advice, even though it was against the only-online communication rule. The participant regarded this experience as a positive event. He said:

Quote FG 4.133:

'Well, I phoned the lecturer once, and asked her: How do you do this? Can you help me? The person who presented the course to us. So I got some subjective support.'

The presence of the lecturer of the module on *Yahoo! Messenger*, especially when the participants were online in the middle of the night, served as a motivational factor. Communication with her was not only experienced as support, but also served as external motivation. One participant said:

Quote FG 4.134:

'I would say that I really got tremendous support from the mentor. We used to talk on the chatterbox thingy… Linda, late at night, you know, it was amazing –'

The above opinion was reiterated by two participants who said:

Quote FG 4.135:

'Ja [Yes], one o'clock, two o'clock at night. Actually that is something that, if she does that again, you know, some of those things wasn't saved [sic], of the talking.'

Quote FG 4.136:

'Ja [yes], that little, on that little box, and I think that out of that you could have got a lot of info. Because really, you know, she helped a lot.'

Although the comment on the lecturer's feedback and support was predominantly positive, two of the participants criticised her support technique, comparing it to a recipe or a ready-to-use product. They said:

Quote FG 4.137:

'But there were really times when it is as if she – if a student say this type of thing, I will say this type of thing. You know, almost like a recipe. I don't know if it's true. I'm not saying that she did that. It could be that –'

Quote FG 4.138:

'Yes. It was supportive, but it was like readily there. Sometimes I got the impression she got them listed. If a student does this, I will do this. I don't know. Maybe that was the job. I don't know. I wouldn't know. It was just an observation that I made, but on a scale, it measured very positively.'

The next example of emotional and cognitive support given by the lecturer contradicts the observations made by the above participants. Gérard and the lecturer had the following synchronous conversation one evening on *Yahoo! Messenger*:

Quote YM 4.1:

Gérard (08:51:34 PM): Hi how are you? Ready for tomorrow night?
Linda (08:51:59 PM): Hi there! As ready as they get...!
Linda (08:52:10 PM): How are things on your side?

Gérard (08:53:09 PM): Struggling to get things for our tribal assignment!!!! Only Sanet has given me anything!
Linda (08:53:52 PM): I notice that those who 'master' the website has an added responsibility in this regard
Linda (08:54:46 PM): I'll keep that in mind (just so you know, ;))
Gérard (08:55:26 PM): Thanks a lot!
Linda (08:55:26 PM): I see your test with (facilitator of the Interwise session) went ok.
Linda (08:55:44 PM): Are you confident with the tools in Interwise?
Gérard (08:56:15 PM): Yes, thought bandwidth would be a problem - NO Way!
Linda (08:56:14 PM): We'll play around a bit tomorrow evening
Linda (08:56:18 PM): Don
Gérard (08:56:55 PM): Yes
Linda (08:56:31 PM): Oops, fingers slipped
Linda (08:57:05 PM): Don't worry too much, it's really all about getting hands-on experience
Linda (08:57:32 PM): If things do go wrong (and something is bound to!) we'll learn from that as well
Gérard (08:58:12 PM): Yip, am really [sic] enjoying this module!
Linda (08:58:54 PM): Good! That's the idea, even though I realise that it must be stressful even to guys like yourself with a solid Internet background
Gérard (08:59:58 PM): A 90 degree learning curve!
Linda (08:59:47 PM): Then I'm happy!
Gérard (09:00:19 PM): Bye
Linda (09:00:06 PM): bye, and good luck tomorrow evening!

One of the participants, Gérard, who according to the lecturer had a solid Internet background, described the online module as a *'90-degree learning curve'*. This indicated how demanding the *CyberSurfiver* module really was. Despite the support received from fellow students, family, friends, and the lecturer, participants had negative experiences of the module as a competition.

4.5.6 Negative experience of module not being a game

Participants believed that the competition format of the *CyberSurfiver* module and the voting procedures had a negative effect on the attainment of skills and good marks, which they regarded as priorities. They felt that less skilled participants would have done better if the module was not presented in the format of a game. Hendrik said:

Quote FG 4.139:

'Ek dink die swakkeres sou beter gedoen het as dit nie n speletjie was nie, as ons in ons tribes gebly het die heeltyd, en as dit 'n kompetisie onder die spanne was, en nie spanlede onder mekaar nie. Die afstem, dink ek, het 'n baie negatiewe effek gehad. Jy kon dit agterkom aan die – jy kon tussen die lyne lees. Die mense voel nie lekker nie. Ek sou nie lekker gevoel het as ek afgestem was nie. Jy's tog 'n mens. Jy vat dit persoonlik.'

[Translation]
'I think those who did poorly would have done better if it wasn't a game, if we stayed in tribes all the time, and if it was a competition between tribes and not between tribe members. Voting out people, I think, had a very negative impact. It was noticeable in – you could read it between the lines. The people did not take it

well. I also wouldn't take it well if I was voted out. You're only human. You take it personally.'

Pedro, who won the game, supported Hendrik's viewpoint by saying that the ultimate aim was to master the necessary skills and to achieve good marks. He worked hard from the beginning, not only to win but also to do well. The information about a prize was only given after the game had begun. Even though he enjoyed the prize, he held the opinion that he had worked hard to achieve the outcomes of the module and to receive good marks. He said:

Quote FG 4.140:

'Ek wil net sê dis waar ek saam met Hendrik wil stem, want op die ou end het dit gegaan oor punte. Vir my. Ek het hierdie hele ding gewen, en ek was weg vir 'n naweek, jippiekajy!, maar ek moet nou eerlik vir julle sê, nie vir een sekonde het ek gedink ek doen dit nou om die naweek te wen nie. Ek het gedink ek doen dit nou om goeie punte te kry. After all, ja, hulle het eers later gesê ons kan iets wen met hierdie storie, maar dis ook hoekom… Dit gaan oor punte. Op die ou einde gaan dit oor punte. Hierdie is 'n module wat jy moet afhandel, wat jy moet weet…'

[Translation]
'I just want to say this is where I agree with Hendrik, because in the end it was about marks. For me, I won this whole thing, and I went away for a weekend, hip, hip, hurrah! But honestly, I can tell you, I did not think for one second that I was doing it to win the weekend. I thought I did it to get good marks. After all, yes, they only told us later on that we could win something with this story, but that is also why… It is about marks. In the end, it's about marks. This is a module that you must complete, what you should know….'

A second participant noted that learning was painful, as the module was less than a game and more like a competition. He stated that he really wanted to do well. He said:

Quote FG 4.141:

'Painful learning. It was no game. You know that, hey. It was no game. It was like a competition. Because I'm one of those people: when there's something up for grabs, I really want to do well, and hope that maybe in the end, maybe you'll just … survive and win the game. So, in the beginning I thought that the guys or people who know, or who don't know those things, are going to be voted off in the first week or two. But some way I survived, and in the end when there were only what four, five, six left, then you – maybe it gets close – so maybe you can wait.'

A third participant reiterated the importance of grades. The participant stated:

Quote FG 4.142:

'And the fact that it's my marks. I really wanted to do well. I carried on in spite of the fact that it was a competition.'

The following quotation explains a participant's experience of the module as not being a game only, and the negative and positive aspects associated with it. The relation

between the reality television game show *Survivor* and the module *CyberSurfiver* is apparent in this summary given by a participant during a focus group interview:

> **Quote FG 4.143:**
>
> *'Nee, weet jy, ek het toevallig nou hierdie Survivor Thailand nou gevolg hierdie laaste ruk, en nou dat ek die hele tyd hier gesit en luister het wat hulle alles gesê het, en deur my gedagtes weer recall het alles van verlede jaar se storietjie, die oomblik wat mense in interaksie met mekaar is, en hulle skuur teen mekaar, is daar sekere emosies en sparks wat gebeur. So alles wat, vir my, wat ek nou weer op Survivor Thailand gesien het, van agteraf collaborate, en agteraf gesels oor dinge, emosies wat jy beleef as jy gewen het… al daai tipe goed is alles goed wat ek nou weer gesien en gehoor en beleef het. Ek stem met al daai goed saam wat hulle genoem het: die up's en down's en wanneer jy iets reggekry het, maar ek bedoel dit is maar net so. Wanneer jy kommunikeer en jy's afhanklik van mekaar, en daar's iets waarvoor jy werk, en daar's geld betrokke, dan, outomaties is al hierdie emosies betrokke. Jy werk in die eerste plek vir jouself. Ek dink dit is nogal bepaald van die eerste twee, drie weke. Dit wat Barbara ook daar sê het ek ook gevoel, die eerste ruk het dit gegaan oor survive, en as jy nie kon survive of wat nie, dan het dit dalk vir jou gevoel maar iemand stem jou af, en hulle het dalk iets teen jou, of wat ookal. Maar dit het nie daaroor gegaan nie. Dis soos ek dit maar gesien het. Almal het maar ge-survive. Dit het maar later bymekaar gekom dat ons met die Messenger en alles, met mekaar kon begin kommunikeer het, en omdat mens sien maar jy sukkel met iets, en 'n ander ou help jou uit daai slootjie, dan voel jy soos 'n span.'*
>
> [Translation]
> *'No, you know, quite by chance I watched this Survivor Thailand the last few weeks. And now that I have sat here the whole time, and I have listened to what they had to say, I recall in my mind everything about last year's little story - the moment that people interact and they rub each other the wrong way, there are certain emotions and sparks that fly. So, all that, for me, that I've seen now again on Survivor Thailand, of working together behind the back, of talking about things behind the back, emotions that you experience if you win … all those sort of things are things that I now have seen and heard and experienced again. I agree with all those things that they have mentioned: the ups and downs, and when you succeeded in doing something, but I mean, it is just the way it is. When you communicate and you are dependent on each other, and there's something to work for, and there's money involved, then, automatically all these emotions are involved. In the first place, you work for yourself. I think this was definitely (the case) in the first two, three weeks. That what Barbara said, I also felt, the first few weeks were all about survival, and if you couldn't survive, or what not, you might have felt that somebody was voting you off, or they had something against you, or whatever. But it wasn't about that. This is how I see it. Everybody was just surviving. Only later on did things came together, with Messenger and all, that we could start communicating with one another, and because you realise that you are struggling with something, and somebody helps you out, you feel like a team.'*

From the above quotations, it could be inferred that participation in *CyberSurfiver* had both positive and negative consequences and results. On the one hand, participants experienced learning as 'painful', as the competition aspect of the module elicited emotions that could be described as 'sparks'. On the other hand, positive experiences such as interaction, interdependence, communication, support, a feeling of belonging, and teamwork came to the fore. In the next section, all these aspects will be discussed in the context of literature that was obtained about virtual groups and online learning.

4.6 Literature control

4.6.1 Altruism and individualism

The quotes in this chapter relate as follows to the discussion on altruism and individualism:

- Quotes FG 4.1 to FG 4.8 and EM 4.1 pertain to participants' fear of failing and disappointing group members. The relevant quotes also refer to the selfish behaviour of some of the participants (including feelings of guilt about selfish behaviour) and assistance given to group members.
- Quotes FG 4.9 to FG 4.11 pertain to feelings experienced by participants with regard to group identification.
- Quote FG 4.12 and Quotes EM 4.2 to EM 4.12 dealt with the support that participants gave each other.
- Quotes FG 4.13 to FG 4.29, as well as EM 4.13 to EM 4.17, pertain to the risk-taking behaviour of participants.

Altruism and individualism as personal philosophies are fields of study in their own right. Because of the nature of this research, a broad discussion on these philosophies is not feasible. However, each philosophy will be discussed briefly to enable the reader to achieve a sense of perspective with regard to the participants' affective experiences as they relate to altruistic or individualistic behaviour.

Altruism and individualism are distinctly different. Altruists are dependent on the combined thinking of all as a group. Individualists see thinking as best done by the individual. Altruism preaches selflessness as a virtue; individualism shows strengths in selfishness.

In 1851, the French philosopher Auguste Comte coined the word *altruism* as *'self-sacrifice for the benefit of others'* (Altruists International [Sa]). It entered the English language in 1853. Comte's ethical system, in which the only moral acts were those intended to promote the happiness of others, was considered by many to be rather extreme. As a result, the following meaning evolved: *loving others as oneself* (Altruists International [Sa]).

Currently, scientists, who explore how unselfish behaviour could have evolved, use another meaning for the word *altruism*. These scientists explain that altruism is a philosophy '*…that promotes the survival chances of others at a cost to one's own'.*

Altruists are happy when others thrive, and sad when others suffer (Altruists International [Sa]).

There are, however, cynics who say that altruism is just another form of selfishness (Wood 2001). Wood mentions the following argument held by some cynics:

> *'We do good, at best, in order to enjoy an enlightened sense of our own goodness, and at worst, because helping others makes us feel superior.'*

According to Wood (2001), cynics also say there is no such thing as selfless action. These cynics are of the opinion that, as a society, people are torn between contradictory values: their responsibility FOR each other versus their responsibility TO each other' (Wood 2001).

Individualism '*holds that every person is an end in himself and that no person should be sacrificed for the sake of another'* (Stata 1992). Individualists argue that their actions produce emotional rewards within themselves, so they have selfish reasons to perform them. In altruists, the egoistic impulse is much stronger than the altruistic impulse. The following quote indicates the 'rebellious' nature of individualists:

> *'An individualist is a man who says: "I will not run anyone's life - nor let anyone run mine. I will not rule or be ruled. I will not be a master nor a slave. I will not sacrifice myself to anyone - nor sacrifice anyone to myself'* (Rand 1946).

It is the personal belief of the researcher that devotion (personal commitment) and support of others will lead to personal achievements. The researcher believes that, by devoting one's life to accomplish the most one can and by supporting the achievements of others, one will add to the realisaton of one's own achievements. By doing this, one will adhere to natural motivation, and have a cause that is bigger than oneself. Eventually, devotion and the achievement of greatness will reward the individual.

I am of the opinion that altruism and individualism are natural 'genetic' traits that are present in all human beings, to different degrees. With reference to the participants in this study, these traits began to surface when they were required to function in a group. It could be suspected that some students had thoughts (however 'pure') with regard to how much they would benefit from helping or supporting another group

member. These probably depended on how important they valued the act of caring and helping, how much they believed this act may create positive perceptions about themselves, and whether they believed that their group members will in turn help them when they needed it.

In her research report, Stacey (1999) explained that the expectation of the group with regard to the individual's contribution strongly motivated group members to apply themselves to collaborate online. She believes that people become more responsible when they realise that others are depending on them. Stacey quotes one of her students to affirm her finding:

> *'You've got demands on you to get in there and look and to keep yourself up to date with what's happening.'* (Stacey 1999).

Anonymity was not considered with regard to the *CyberSurfiver* module. Although this module was presented online (and not face-to-face), the participants knew each other before the game commenced. This 'factor of familiarity' may have contributed to the fear that some participants had (due to their perceived lack of knowledge and skill) of disappointing their peers. In the context of the discussion on altruism and individualism, the fear of disappointing group members, selfish behaviour, and feelings of guilt about selfish behaviour could be seen as normal human behaviour.

Students were divided into groups and had to work together as the game required. The design of the module (game) was such that students had no choice but to collaborate with team members. Groups consist of individuals with unique personalities, needs, abilities, and self-esteem, and each individual brings to the group a unique complexity in terms of needs, skills, and styles. Factors such as the environment, individual members, the size of the group, and its purpose influence both individual and collective behaviour simultaneously (Wood, Phillips & Pedersen 1996). All the aforementioned characteristics applied to the *CyberSurfiver* groups. These groups had collective goals, and the success of each group depended upon the success of its members (Buher & Walbert 2004). Thus, the common purpose of each group distinguished them from individuals who merely got together (Samovar *et al.* 1996).

According to Smith (2002), '*...virtual teams have become the vehicle through which group work is accomplished in distance learning environments*'. In *CyberSurfiver,* group work created opportunities for participants to socialise, belong, and to co-

construct new knowledge. Knowledge was generated and participants shared information. Participants with various skills and perspectives worked together to produce results (see Quotes FG 4.3 and FG 4.5). Individuals relied on each other to accomplish common objectives, as explained by Smith (2002). The *CyberSurfiver* challenges were complicated, because participants had to communicate, trust each other and meet deadlines, and then they had to get rid of a group member by voting her/him out. The voting requirement evoked contrasting feelings with regard to group cohesion and loyalty to individuals in the group. (Refer to Quotes FG 4.3, FG 4.5, FG 4.10 and FG 4.11, as well as Quote TM 4.1).

Differences in attitude and personality of group members are evident when quotes are read. Some of the *CyberSurfiver* participants exhibited functional, cooperative and selfless behaviour (Quotes FG 4.12, EM 4.3, EM 4.6, EM 4.8, EM 4.9, EM 4.11), while others displayed dysfunctional, competitive, and self-serving behaviour (Quotes FG 4.1, FG 4.2, FG 4.4, FG 4.5, FG 4.7). Similar findings were reported by Samovar *et al*. (1996).

Different authors hold different views with regard to the type of group that functions best: homogeneous or heterogeneous (Anson & Dannels ([Sa]); Flowers & Ritz 1994; Schniedewind & Davidson 2000). The *CyberSurfiver* lecturer divided the participants into groups according to their Internet skills (mixed abilities), as explained in Subsection 3.3.1. The following quote from Van Ryneveld (the lecturer) explains how the participants were divided into groups:

> *'I … divided the people in the room into 4 groups of 6 members each. The learners were asked to locate themselves on an imaginary straight line (continuum), one end of which represented a thorough working knowledge of the Internet, while the other end represented complete ignorance and unfamiliarity of the Internet. They were then numbered in sets of 1 to 4. After that we grouped all the ones, and then all the twos, and so on until the last person, together. The newly formed groups were then asked to come up with a unique tribal name and slogan with which to identify themselves.'* (Van Ryneveld 2004:139).

CyberSurfiver group members also differed with respect to age, race and gender, making the groups extremely heterogeneous. This diversity had a huge impact on the functioning of the groups. The effect of the heterogeneous composition of the group

on the participants can be envisaged by reading the following quote from Van Ryneveld's study with regard to the allocation of people (in general) into groups.

> *'People in everyday life make decisions about what groups they would like to join. If they support a cause that is advocated by a particular group, they might seek to join that group. In such circumstances, membership might be both profitable and logical for them because they perceive the group to be compatible with their ideals and purposes.'* (Van Ryneveld 2004:191*).*

According to Samovar *et al*. (1996), it is shared commitment that results in the development of group norms or standards. The lecturer enforced the rule of no face-to-face communication. Regardless of the lecturer's didactic intentions, the students were not part of that decision. They did not partake in any decision with regard to rule making. As nearly all the students broke the only-online communication rule (see Quotes FG 4.13 to FG 4.16 and Quotes EM 4.14, EM 4.20 and EM 4.23), breaking of this rule may be viewed as an aspect of shared commitment, as well as evidence of risk-taking behaviour and an attempt to 'survive'.

Felder and Brent (1994) are however of the opinion that, in groups composed of members with diverse abilities, less skilled students may gain from observing the problem-solving skills of more competent students. The stronger student may also gain a deeper understanding of the subject by explaining aspects to their peers. Deeper understanding by the *CyberSurfiver* participants undoubtedly took place, if one considers the large number of e-mail messages that was sent to offer assistance when it was requested. The researcher infers that 'selfishness' (with reference to not giving assistance) was rather due to not being able to help, or believing that one did not have the skill to assist.

According to Myers (2003), a sense of belonging develops when you identify with another person or organisation, or perhaps a species, culture, or ethnic group. In the context of this study, participants had developed a sense of belonging, if they felt that they were part of a *CyberSurfiver* group. Picciano (2002) stated that interaction and the feeling of belonging were two different experiences. It was indeed possible for a student to interact by means of e-mail or by posting messages on a bulletin board without feeling part of the group. This could explain why participants went 'missing', and were looked for by group leaders who sent e-mail messages to their peers and the lecturer in that regard.

Participants eventually did develop a feeling of belonging, as was apparent from e-communication that included requests for and offers of support (see Quotes FG 4.9 to FG 4.12, as well as Quotes EM 4.3, EM 4.4, EM 4.8 and EM 4.9). Stacey (1999) stated that, if a student embarking on an online course were seeking help, the group would be the starting point. She gave an example of a student (Sarah) who evoked support by explaining her understanding of something in e-mail messages to her peers. Stacey quoted Sarah as follows:

> *'Oh, it always helps me to tell them what I think, then they can sort of say "well no that's not right" Â… or else just giving you support along the way.'* Stacey (1999).

Stacey (1999) also remarked that the humorous and informal approach to solving technical problems collaboratively set the tone for the group's interaction. Stacey included the following quote as evidence that humour enhanced group interaction:

> *Posted By: Perry*
> *Title: Re "surprise Â… economics!!"*
> *Congratulations Jill you have finally made it into the electronic superhighway!! Watch out there are many false turn offs!!!*

I agree with the following statement made by Cameron (2000):

> *'The success of a group depends on the individual members accepting and applying the rules, and by so doing fulfils [sic] the responsibilities expected with [sic] them'.*

However, I could not find evidence of any research project prohibiting students from meeting face-to-face or making telephonic contact while they were doing an online course. The only-online communication rule, laid down by the lecturer of the *CyberSurfiver* module/game, was, as far as the researcher could establish, unique. The students, therefore, had to meet unique challenges. This situation could have led to risk-taking behaviour. Tu (2002:300) indicated that online students exhibited risk-taking behaviour because they felt they had nothing to lose, if they were discovered.

Connecting online socially is important, as it assists in the creation of social presence (a degree of interpersonal contact) (Gunawardena & Zittle 1997). Aragon (2003) states that the ability to make interpersonal contact (online) decreases due to the

electronic nature of online interaction, the physical or geographical separation of online students, and isolated working conditions.

Educational practitioners rate learner-learner interaction as the most important form of interaction in an online course. This is followed by learner-facilitator interaction (Muirhead 2001; Soo & Bonk 1998). Research also confirms that students need to connect with each other in the online environment (Atack & Rankin 2002; Soo & Bonk 1998; Swan 2001). The abovementioned authors do not specify that the interaction should be face-to-face.

Thurmond, Wambach, Connors and Frey (2002:179) reported that some students were dissatisfied with a course, as they were expected to participate in teams/group projects in an e-learning environment. Thurmond *et al*. (2002:183) were of the opinion that completing course assignments without any face-to-face contact might have been the reason for the dissatisfaction. This point of view is reiterated by Gabriel (2004:68) who suggests that face-to-face communication may play an important role in making online groups more effective.

It seemed that participants in the *CyberSurfiver* module had broken the only-online communication rule for selfish reasons. However, whether their behaviour was altruistic or individualistic, it benefitted all the members of the different groups. Participants felt that they could comply with the demands of the course and achieve its outcomes, only if they could phone and/or visit each other. It appeared that they had found the online communication inadequate to attain their goals. I made this assumption based on the limitations of text-based communication with respect to non-verbal communication. Text-based communication, including online communication, is less responsive than face-to-face communication; therefore, it possibly inhibits expression and eliminates non-verbal communication (McDonald 2002:14). Refer to Quotes Em 4.14 and Em 4.17, as well as FG 4.15, FG 4.20, FG 4.23, FG 4.24 and FG 4.28.

The *CyberSurfiver* lecturer knew that the participants did not adhere to the only-online communication rule, but she realised that breaking the rule was to the benefit of the students. She wrote:

> *'Throughout the module, I was aware of the fact that the learners had not stuck to our agreement that they would use only the online communication tools for their discussions about the module. … I personally had no a (sic)*

problem with them seeking closer contact. In fact, I appreciated the commitment that they brought to their assignments. I was also convinced by that time that they were fully experiencing the realities of being online learners, which was after all one of the main aims of this module. Because I could see that the learners desperately needed this kind of officially illicit contact and the technical support that it provided, I only reprimanded them jokingly (when at all) and never banned other kinds of communication with any degree of vehemence.' (Van Ryneveld 2004:204).

The following cluster in the category *Curative Factors* is *Communication*.

4.6.2 Communication

The following quotes relate to the discussion on communication:

- Quotes FG 4.30 to FG 4.36, EM 4.18 and EM 4.19 pertain to the feeling of loneliness experienced by the participants.
- Quotes FG 4.37 to FG 4.52 and EM 4.20 deal with synchronous and asynchronous communication that took place during the *CyberSurfiver* module.
- Quotes FG 4.53 to FG 4.62 and EM 4.21 relate to the coping experiences of the participants.
- Quotes FG 4.63 to FG 4.67 and EM 4.22 pertain to experiences with regard to language.
- Quotes FG 4.68 to FG 4.79 and EM 4.23 to EM 4.28 relate to the positive and negative emotions of participants.

In online groups, communication does not take place without difficulty. Students find it difficult to engage in spontaneous written communication (Smith 2002). Wegerif (1998) confirms this viewpoint by quoting a study respondent on written communication:

'Writing does not come easily to me. I don't enjoy it. I find it easier to speak. And reading on screen is difficult; it is harder to get the real point than for printed text.'

Online communication requires that users possess some level of computer communication literacy, such as typing, reading, and writing. If users lack these skills,

communication anxiety will develop. Tu (2002:296) therefore suggests that students be introduced to some form of text-based communication, such as casual topics, to ensure the success of collaborative learning.

Multiple modes of communication are used in a face-to-face situation. These modes include voice tone, voice volume, eye movement, facial expressions, hand gestures and other body language. These cues provide for a methodical communication process. By using these modes of communication, taking in a conversation is facilitated, subtle meanings are conveyed, and feedback is provided. Online communication limits the normal give-and-take of discussion (Smith 2002). This is reiterated by Cathcart, Samovar and Henman (1996) who are of the opinion that the existence of face-to-face elements in groups is challenged by the possibilities for online interactions. With regard to peer interaction, Burge (1994) states that the absence of visual and aural cues is a specific weakness of online communication (Quotes FG 4.39 and FG 4.41). He quoted a respondent who said:

> '*I don't have these warm bodies around ...that I ...can look at the person's eyes and see if they really mean what they're saying*' (Burge 1994).

Further weaknesses of online communication are loneliness, alienation and isolation, with accompanying anxiety (Burge 1994; Galusha 1997). Hara and Kling (2000) state that the convenience of online learning often leads to students experiencing a huge amount of stress. Students are isolated, and get lonely, as they tend to work at different times and in different places. Abrahamson (1998:37), as well as Palloff and Pratt (2000), is of the opinion that collaborative projects may decrease the feeling of isolation, and increase a sense of a learning community in an online classroom.

When considering Quotes FG 4.30 to FG 4.35, it seemed that the *CyberSurfiver* participants had initially experienced an increase in feelings of loneliness and isolation. The possibility of a decrease in feelings of loneliness and isolation is confirmed by DeWert *et al.* (2003:315) who state that their study participants reported diminished feelings of isolation and helplessness owing to collaborative projects and the use of online communication that provided them with much needed emotional support and encouragement. The *CyberSurfivers* had similar experiences (refer to Quotes FG 4.10, FG 4.11 and FG 4.30).

According to Stelzer and Vogelzangs [Sa], isolation has two dimensions:

- Physiological dimension (distance in place - being alone); and
- Psychological dimension (distance in thoughts - feeling alone).

Stelzer and Vogelzangs ([Sa]) explain that *'the basic problem of online learning is the psychological dimension as a result of the physiological dimension'*. Direct communication with the lecturer and peers does not take place. Hara and Kling ([Sa]) indicated the confusion of one of their participants in this regard, quoting her/him with reference to an e-mail message received from the lecturer. The student said:

> *'I agree with her, but I am not sure if I should send a message saying, "I agree." That's the problem with this e-mail. If this is the classroom, you can just nod your head to show your agreement. I am not always sure that if I am contributing enough or not. … In fact, I haven't gotten any feedback about my contribution. I cannot tell from the e-mail. You can tell from the classroom what the professor thinks about you <u>from the body language and the way they talk</u>. So, I am not feeling that I'm getting enough assessment.'*
> **[My emphasis]**

Similar situations could result in misunderstandings and a lack of social communication. However, according to McDonald (2002:13), online education '*supports interactive group communication with all its social, affective, and cognitive benefits*'. She says that lecturers with years of experience in classrooms report that online learning encourages high quality interaction and sharing. Peters (2001) is of the opinion that the distance learning environment provides more opportunities for interaction with the lecturer than traditional courses.

According to McDonald (2002:14), students may be hesitant to make their ideas, experiences, and feelings known in print. In addition, online students may even fail to pay attention to emotional aspects. This may lead to confusion (see Quote FG 4.57) and a large number of negative comments that may be difficult to resolve in a virtual environment (Smith 2002). Wegerif (1998) quotes a participant in this regard:

> *'It is a cold medium. Unlike face-to-face* (sic) *communication you get no instant feedback. You don't know how people responded to your comments; they just go out into silence. This feels isolating and unnerving. It is not warm and supportive.'*

CyberSurfiver participants had similar experiences. (Refer to Quotes FG 4.36, FG 4.37 and FG 4.41 to FG 4.45.) Stacey (1999) found that supportive comments posted by students, as well as sharing of personal anecdotes and information, proved to serve as a network of social interaction that *'underlay the mutual respect and trust needed for a successful collaborative group process'*. This type of communication seemed to help students develop a sense of belonging. Stacey (1999) noted that most of the students interviewed expressed comments such as the following:

> *'It makes you feel there's someone else there, and you're not sort of sitting all alone out away from contact with other people.'*

Gabriel (2004:63) quoted a participant on the support she experienced by reading e-mail messages/e-conversations between group members. This quote is very similar to Quote FG 4.58. Gabriel's participant said:

> *'I found that just reading what other people had to say.... helped with what I wanted to contribute as well ... people have such good ideas, and you don't realize them until you hear them or see them, I guess in this case ... You just get to hear* (sic) *the other people's opinions and things you don't think of until you hear them, and then you think, "Oops, why didn't I think of that? That's great," you know!'* (Gabriel 2004:63).

With regard to some of the *CyberSurfiver* participants, it seemed that their lack of knowledge and skill with respect to software and the Internet might have added to their feeling isolated within the game. Their limited knowledge and skills might have prevented them from participating sufficiently in discussions, or even contributing to group assignments, and this again might have led to feelings of loneliness and alienation, as well as anxiety and stress.

According to King (2002:160), anxiety generally manifests in first-time distance education students and dissipates as the course progresses. As opposed to King, Hara and Kling (2000) found that feelings of distress, such as frustration, anxiety and confusion, seemed to be pervasive. They stated that these feelings were experienced, regardless of the fact that students supported each other or developed a sufficient sense of social presence.

Tu (2002:294) quotes Tu and McIsaac (2002) who define social presence in the online learning environment as '*...the degree of feeling, perception, and reaction of being*

connected on CMC to another intellectual entity'. Tu (2002:294) states that learner characteristics, learners' perceptions of online environments, attributes of communication media, learners' computer literacy, and the use of emoticons and paralanguage are some of the factors that contribute to an appreciable degree of online social presence. According to Tu (2002:294), social presence should be viewed as a subjective quality that depends upon the objective quality of the medium. A respondent's subjective point of view, and a positive experience, is apparent from the following quote:

> *'For the small part that I played in the group, I found it very interesting and stimulating'* (Woods and Baker 2004).

Some online support communities overcome barriers of time and distance and offer advantages of convenience and flexibility because communication can occur at any time and from any place (DeWert *et al*. 2003:312). Students overcome the barriers to such an extent that they express feelings of missing the interaction when they have completed their courses. Gabriel (2004:63) quoted a student who used words quite similar to those in Quote FG 4.78. Gabriel's student said:

> *'One of the nicest things for me in taking my master's is that interaction, … and having a conversation and talking about ideas or concepts... And I missed it'* (Gabriel 2004:63).

The experiences of students in the online environment are cause for a myriad of feelings/emotions. Most lecturers and authors recognise and accept the crucial role of affect in learning. Picard, Papert, Bender, Blumberg, Breazeal, Cavallo, Machover, Resnick, Roy and Strohecker (2004:253) acknowledge that leading theorists of the cognitive scientific revolution, such as Simon (1967) and Norman (1981), have called for greater representation of affect. Picard *et al*. (2004:253) are however of the opinion that '*the extension of cognitive theory to explain and exploit the role of affect in learning is at best in its infancy'*.

Theories on computer education tend to favour the 'cognitive' over the 'affective', and thinking and learning are viewed as information processing, while affect is ignored (Picard *et al*. 2004:253). The fact that it is difficult to measure information on the affective state is a possible reason for this state of affairs. It is easy to measure someone's ability to recall a list of items or to generalise and apply knowledge. It is

however much more difficult to measure how a person feels during the period that s/he provides evidence of knowledge and skill (Picard *et al*. 2004:255).

Learning is associated with positive and negative emotions. Learners experience feelings, such as confusion, despair, and frustration, when problems are encountered. On the other hand, when everything is going smoothly, curiosity, fascination and intrigue are experienced. Emotions such as enthusiasm, delight, and amazement are desirable feelings, while awe, wonder, and enlightenment (the aha! moment – the epiphany or revelation as everything becomes clear) are the extreme positive emotions (Kort & Reilly 2002a:57).

In this study, participants were requested to describe the feelings (emotions) that they experienced while they were doing the *CyberSurfiver* module. Their feelings coincided with the different phases of development, described in Chapter 5. Their feelings could not be measured but, through data analysis and the interpretation of data, inferences could be drawn.

The participants experienced emotional highs and lows. While they desired to further their qualifications and expertise (probably a main reason for registering for the online course), they encountered problems, such as information overload, time constraints and prescribed communication modes, which caused anxiety and stress. The combination of pressure (leading to affective experiences) and cognitive expectations (to know, analyse, and decide) cause confusion and uncertainties (affective behaviours) in learners, sometimes to such an extent that an individual may decide to quit, or resist (affective behaviours) information seeking (Nahl 2001).

Anxiety may act as a filter that prevents students from mastering a subject. In higher education, the focus on cognitive skills in learning discourages researchers, educators and learners to routinely translate common sense knowledge into spheres of learning. If more attention is given to the affective dimension, it will serve as recognition that no subject is anxiety safe (Cousin & Davidson [Sa]). The *CyberSurfivers* mentioned that they were thrown in at the deep end. They felt unprepared and incompetent, and these feelings probably contributed to their anxiety.

According to Tu (2002:296), '*online communication is concerned with the attributes of the language used online and the applications of online language'*. Wegerif (1998) found that students felt alienated, as the course *'was dominated by a group that spoke a different language'*. The students involved in Wegerif's course came from

different backgrounds. He acknowledges that diversity may always be a problem, but suggests that the creation of a strong sense of community will help students overcome their fears. The majority of the participants in the *CyberSurfiver* module managed to accommodate their peers by communicating in English. The Afrikaans speaking students undoubtedly had the opportunity to speak Afrikaans when they phoned and/or visited each other.

With regard to language, Lu (1998) states that if parents and children do not speak a common language, their communication will often be limited to '*the basic necessities, preventing parents from transmitting to their children the complex set of values, beliefs, wisdom, and understanding'*. This may also relate to communication between lecturers and online students, and online students who participate in collaborative learning. If these students are not able to communicate with each other and their lecturer in a language that they all understand and speak, their cognitive and affective development will suffer.

Stacey (1999) stated that participants admitted fear of posting written messages to the group in a language other than their mother tongue. According to Hara and Kling ([Sa]), the online environment can become *'experiences of frustration'* to students who have a limited knowledge of English. They noted that one of the participants dealt with this problem by communicating with one of her peers who spoke the same first language. Although the *CyberSurfivers* used English as the common language when they communicated online, they preferred their mother tongue to English when they visited or phoned each other.

Ball (2003) is of the opinion that second language English speakers find each other just as intelligible as they find first language English speakers. He gives the example of a Korean who might find it easier to follow the English spoken by a fellow citizen than would a native speaker of English. The reason for this being that they share a phonetic vocabulary, while a foreign accent may hinder comprehension. However, this example refers to interpersonal (face-to-face) communication. During the *CyberSurfiver* module, the participants (mostly native speakers of Afrikaans) had to communicate in text. Their anxiety with regard to English might have been due to a lack of vocabulary. Another reason might be that they were not yet skilled in using subject terminology (the terminology relating to computer software and online learning).

4.6.3 Internal Drive and Value System

The following quotes relate to the discussion on internal drive and value system:

- Quotes FG 4.80 to FG 4.82 pertain to coping.
- Quotes FG 4.83 to FG 4.91 and EM 4.29 to EM 4.39 pertain to negative emotions, such as feeling agitated.
- Quotes FG 4.92 to FG 4.106 and EM 4.40 to EM 4.50 relate to feeling threatened and exposed.
- Quote FG 4.107 to FG 4.114 deal with self-image.
- Quotes FG 4.115 to FG 4.126 and EM 4.52 to EM 4.53 represent the positive experiences of participants.
- Quotes FG 4.127 to FG 4.138, EM 4.54 to EM 4.57 and YM 4.1 relate to the experiences of participants with regard to feedback from the lecturer.
- Quotes FG 4.139 to FG 4.143 pertain to the participants' experiences of the module not being a game.

In the past, theoretical models of higher education theorised that a student's decision to persist is largely based on previous behaviour, attitudes, and norms that drive behaviour through the formation of intent to learn. Volition is described as '*a psychological state characterized by thoughts about the implementation of goals into action and … self-regulation in the context of persistence'* (Rovai 2003:3).

According to Laschtuwka (2003), online learning requires self-motivation and independence, as well as a personal and deeply felt desire to learn. This is called *intrinsic motivation*. However, online learning also requires rewards, such as a promotion. This is called *extrinsic motivation*. Malone and Lepper (1987) are of the opinion that intrinsic motivation is created by four qualities: challenge, curiosity, control and fantasy. Students tend to want to do tasks that seem <u>challenging</u>. The outcomes set for participants in the *CyberSurfiver* module were certainly challenging. Their motivation was sustained because they felt they were making acceptable progress, and felt satisfied about their progress. This is evident in the discussion on the developmental process that the participants experienced (refer to Chapter 5).

The lecturer of the *CyberSurfiver* module kept the participants <u>curious</u> throughout the 'game', as she provided them continuously with small challenges (learning opportunities) that made their learning experiences interesting. The participants took <u>control</u> of the learning situation by exhibiting risk-taking behaviour, as discussed in

this chapter. The nature of the *CyberSurfiver* module, being a game, created ample opportunity for participants to create mental images or experience fantasy.

Chyung (2001) believes that adult learners are goal-oriented. Educators should therefore create online learning environments in which adult learners can achieve their goals. Unfortunately, even in the best learning environment, frustrations with regard to technological problems may arise. King (2002:160) is of the opinion that this will be a continuing problem. Gabriel (2004:65) agrees, stating that participants in a study reported frustration with the process of online learning, technology crashes, and learning course content (Refer to Quote EM 4.35 and Quotes FG 4.83 to FG 4.89).

Hara and Kling (1999) found that some students freely expressed their anxiety and frustration with a course in e-mail messages. They quoted the following messages that were posted on separate days:

> *I have spent one hour trying to follow your directions. I am getting an error message. The first time I tried to download it as a zip file, the error says, cannot access this file. I am getting extremely frustrated :(* (Hara & Kling 1999).
>
> *This computer is very frustrating. I would imagine it is like sitting in a class and only understanding some of what was said, then asked to answer a question. I have felt it ... panic ... isolation ... frustration ... anger. This has been a very good lesson. I will keep trying* (Hara and Kling 1999).

Not only do some students experience anxiety during online learning, but they may also find it difficult to interact online. Woods and Baker (2004) reported that students expressed a certain level of comfort in their small-group audience, but described feelings of inhibition when they had to interact within a larger group. (Regarding *CyberSurfiver*, Quotes FG 4.92, FG 4.94, FG 4.96 and FG 4.97 are comparable). Stacey (1999) concurred with this finding of Woods and Baker, quoting a participant who said:

> *'You don't tend to ask questions in a forum of a huge number of people, because you think, "oh this could be a stupid question'* (Stacey 1999).

Stacey (1999) also gave two examples of students who did not participate fully in a course, or who dropped out, as they felt incompetent. One student explained that he felt daunted by the quality and quantity of the contributions of his peers. Both these

students felt that they lacked knowledge of subject matter, and that their contributions would be of little value. Therefore, they did not contribute to the discussions, were irritated and lost interest. It seemed that some of the *CyberSurfiver* students did not participate fully, as they experienced feelings of incompetence and were afraid of exposing their lack of knowledge.

Interestingly though, it seems that the Internet may accommodate learners who previously might have felt intimidated or shy. Larson and Keiper (2002) report that learners, who often do not participate in a face-to-face situation, become more conversational in the online environment. They hold the opinion that, even though many learners express a preference for face-to-face interaction, the Internet does act as an effective communication medium.

According to Yu, Chang, Liu and Chan (2002), 'gaming' as instructional method serves as a powerful technique to capture student interest. Competition, as an element of the game, may serve as motivational factor. *CyberSurfiver* was a game, and competition a key element of the game. The participants, however, did not experience the module as a game, and felt that the competition aspect made it even more stressful. However, the competition aspect did motivate them to comply with the requirements of the module.

According to a study by Vonderwell (2003:86), students commonly expressed the opinion that communication in the Web-based environment should be clear, and e-messages carefully constructed. He quoted a student who said that one should express one's feelings and ideas clearly because people interpret things differently. The relevant quotes are given below:

> *'You need to know exactly what the instructor wants. Sometimes you are going to have a miscommunication; someone is going to post or read something incorrectly'* (Vonderwell 2003:86).

> *'You have to be sure that you're being clear . . . that there is no question about what you're asking or what you are saying. Online learning made me think a little bit more of how everybody interprets things differently …'* (Vonderwell 2003:86).

According to Vonderwell (2003:86), the asynchronous communication environment encourages students to carefully construct and express their ideas. This was also true of *CyberSurfiver* participants who indicated that they used MSWord to edit their e-

messages. Vonderwell mentioned a student who said that Web-based learning had improved her communication skills, as she had learnt to clarify items, ask questions, and specify her concerns. Vonderwell also quoted a student who said that asynchronous communication improved collaborative learning. The relevant quote reads as follows:

> *'In the web-based class communication between people is a lot different . . . With the forum questions students are able to express themselves a lot more, unlike in a classroom setting . . . so I get to learn from other people's ideas as well as from the teachers'* (Vonderwell 2003:86).

Interaction between students, or between students and the lecturer, is however not the only form of interaction in the online learning environment. Woods and Baker (2004) state that online learning always includes an element of student-environment interaction. They define this type of interaction as:

> *'A reciprocal action or mutual influence between a learner and the learner's surroundings that either assists or hinders learning'* (Woods & Baker 2004).

This definition emphasises the role that multiple contexts, such as the family, workplace, and peer groups, play in the online learning process. The student simultaneously engages and interacts with these contexts, which extend beyond the online environment. Woods and Baker (2004) refer to this as learner-context interaction. When considering the support and positive experiences they had, *CyberSurfiver* participants clearly stated how important interactions with their families and colleagues were.

Vonderwell (2003:82) also explored the relation between the participant's image and participation in a traditional versus online classroom situation. Participants indicated that they were concerned about their image (about how they were perceived by other students) when they asked questions in a face-to-face classroom situation. The participants found it difficult to ask questions or communicate their ideas in the face-to-face situation, because they were afraid that they would '*look stupid*.' Contrary to this, some of the participants said that the online environment encouraged participation, as they were less concerned about their image while they were communicating online. One participant commented as follows:

> *'It [online classroom] is free in being more anonymous and you can express your feelings and ask more questions without worrying about what other people think about you . . . I ask more questions [in the online class], so I am more clear on things and it just expands what I am learning'* (Vonderwell 2003:82).

Contrary to this finding by Vonderwell, *CyberSurfiver* participants experienced the 'online classroom' as stressful, as they were quite concerned about how they were perceived in this environment by not only their peers, but also family members and friends. Their fears related to their interaction in the online environment and whether or not they would achieve the outcomes of the module (see Quotes FG 4.92, FG 4.94, FG 4.96 and FG 4.97). Woods and Baker (2004) also found that students showed considerable concern and anxiety about the form of messages and, specifically, spelling mistakes. Some students produced carefully prepared pieces throughout the course. (With regard to the concerns of *CyberSurfivers*, see Quotes FG 4.98 to FG 4.100 and FG 4.106). According to Woods and Baker (2004), a tutor of a course once mentioned that he '*always put deliberate spelling mistakes in his early messages to help the students relax'*. However, not all students would feel equally comfortable with such a relaxed style.

As the online student is impaired by the '*lack of casual contact with the teacher and other students*', it is critical that they receive prompt feedback from the lecturer (Galusha 1997). Thus, their satisfaction with a course is related to the level of interaction with the lecturer (Roblyer 1999:160). It is important that the lecturer provides appropriate online feedback and support, and stimulates and maintains the student's interest (Moore 1989:3). Gabriel (2004:55) notes that students are motivated by regular interaction with the lecturer, which also improves learning. Students prefer "*prompt unambiguous feedback*" on a continuous basis. This poses a problem, as e-communication often is asynchronous.

CyberSurfiver participants were however very satisfied with the frequency of feedback from their lecturer and the manner in which feedback was given. It seemed that the lecturer had made the most of online teaching, and managed it well. According to Anderson (2002), compared to all types of interaction, students place the highest value on student-lecturer interaction. The *CyberSurfiver* participants' positive experiences with regard to feedback from and interaction with the lecturer are seen as a very encouraging result.

The *CyberSurfiver* participants also had to interact with their peers but, due to the nature of the learning environment (being divided into groups and competing against each other), student-student interaction was not always experienced as positive. Even though they did not interact face-to-face, they had negative experiences, which were very similar to problems that members of traditional groups experience when they compete face-to-face (Yu *et al.* 2002).

Face-to-face competition may lead to disagreements, mild irritations, and conflict within groups. Picciano (2002) concurs, saying that, within any kind of competition, for a person to win, another person must lose. However, Picciano is of the opinion that:

> *'…competition in the anonymous mode is more likely to reduce the tension, stress, anxiety, nervousness or other similar negative emotional states on the players as usually exhibited in the face-to-face competition mode'.*

Although the *CyberSurfiver* participants competed against each other in an online game, they were acquainted, as they had interacted before in a normal classroom setting. Because the game could not be played within the boundaries of 'online anonymity', and because of group cohesion that developed, participants did not follow the rules of the game. In addition, some regarded the achievement of goals and good marks as their main priority. For these reasons, at the later stages of the game, the competition aspect was ignored or undermined.

4.7 Summary

In this chapter, the first category, namely *Curative Factors,* identified during the data analysis and coding process of this study, was discussed. Three clusters of themes were identified, namely *Altruism versus Individualism, Communication*, and *Internal Drive and Value System.* The concepts, definitions, and the inclusion and exclusion criteria relating to the clusters were explained. The discussion included quotations obtained from the transcripts of focus group interviews, as well as quotes from synchronous conversations on *Yahoo! Messenger* and e-mail text messages that students sent to each other and the lecturer while the module was active. Applicable literature was discussed in an effort to compare the experiences of the *CyberSurfiver* participants to those of participants in similar studies.

The next chapter will include a discussion of the second category, namely *Process of Affective Development* (*Initial Phase, Second Phase and Third Phase*). Relevant literature will be discussed.

Table of content

5 Process of Affective Development

5.1 Introduction

In Chapter 4, the first category of coding, *Curative Factors*, was discussed. In Chapter 5, the second category, *Process of Affective Development*, is discussed and the literature control conducted. Quotes from the transcripts of the focus group interviews, e-mail text messages that students sent to each other and their lecturer during the time in which the module was active, as well as some of the synchronous conversations on *Yahoo! Messenger*, are included in the findings.

Quotes from the focus group interview transcripts and e-mails are organised according to the clusters and sub-clusters of the coding process.

5.2 The Process of Affective Development

The *Process of Affective Development* was the second category of data that was formed during the coding of the transcribed focus group interviews. In order to understand what is meant by the concept 'Process of Development', definitions with regard to the words 'process' are provided in Table 5.1.

Table 5.1: Definitions of the concept *process*

Source	Definitions of *process*
Kozier, Erb and Olivier (1991:1424)	A series of actions directed toward a particular result.
SA Concise Oxford Dictionary (2002: 932)	• Series of actions or steps toward achieving a particular end; • A natural series of changes.
Dictionary.com (2004)	A series of actions, changes, or functions bringing about a result.

To understand what is meant by the concept Process of Affective Development, definitions with regard to the word Affect/ive are provided in Table 5.2.

Table 5.2: Definitions of the concept *affect/ive*

Source	Definitions of *affect/ive*
Huitt 1999a	A feeling or emotion as distinguished from cognition, thought, or action.
Huitt 1999b	The emotional interpretation of perceptions, information, or knowledge.
Yahoo! Education 2005	• Influenced by or resulting from the emotions; • Concerned with or arousing feelings or emotions; emotional.

To understand what is meant by the concept Process of Affective Development, definitions with regard to the concept Development are provided in Table 5.3.

Table 5.3: Definitions of the concept *development*

Source	*Development*
Kozier, Erb and Olivier (1991:1424)	An inividual's increasing capacity and skill in functioning related to growth.
Stedman (1987:198)	The act or process of natural progression from a previous, lower, or embryonic stage to a later, more complex, or adult stage.
Oxford Dictionary (2002:318)	• Grow or cause to grow and become larger or more advanced; • An event constituting a new stage in a changing situation.
Dictionary.com (2004)	• The act of developing; • The state of being developed; *and* • A significant event, occurrence, or change.

In view of these definitions, the Process of Development for this study implies: The series of changes that depict the process of natural progression in the affective interpretation of information, learning and perceptions during the course of affective development as experienced by the participants in the online learning environment. At first, they felt frustrated and anxious and made plans to adjust to their situation, and eventually overcame their fears and anxiety by fulfilling the outcomes set by the lecturer. The Process of Development consists of three phases: Initial phase, Second phase and Third phase. Each phase will be discussed under separate headings.

5.3 Initial phase: Responding to requirements

The criteria that a statement had to meet in order to be classified as indicative of the initial phase are provided in Table 5.4 in order to assist in the understanding of the

process of the development that took place during each phase. Also included in Table 5.4 are the inclusion and exclusion criteria for statements on the initial phase of development.

Table 5.4: Denotations of Process of Affective Development – Initial phase

	Initial phase
Criteria	Verbal and text-based indications by participants that linked to the initial phase of the process of affective development during the online module.
Inclusion for cluster	When participants verbalised affective experiences that indicated attention and responsiveness to the requirements for the online module.
Exclusion for cluster	When participants verbalized affective experiences that did not link to the initial phase of the process of affective development in the online module.

5.3.1 Chaos and angst

The following statement best reflects the participants' feelings at the beginning of the module:

> **Quote FG 5.1:**
> *'The first week was a big shock …'*

Two participants attributed their uncertainty to the newness of the module and not knowing what was expected. They respectively said:

> **Quote FG 5.2:**
> *'…not knowing what was going to happen. Never having done this before.'*

and

> **Quote FG 5.3:**
> *'I think it was for me a whole new thing. I was not used to …'*

Some participants found the module very challenging:

> **Quote FG 5.4:**
> *'Ja, sjoe, ek het my alie afgesukkel, en dit is die heeltyd tref-en-trap, tref-en-trap, tref-en-trap.'*

[Translation]:
'Yes, whew, I struggled my butt off and the whole time it was hit-and-run, hit-and-run, hit-and-run.'

Another participant reiterated the feeling of uncertainty by comparing the situation to not being able to swim:

Quote FG 5.5:

'Die chaos aan die begin – jy kan nie swem nie, want ek bedoel dit is, jy weet nie wat om te doen nie, jy weet nie wat aangaan nie, jy weet nie waar om te soek nie, jy weet niks. Jy trap water.'

[Translation]:
'It's chaos in the beginning – you can't swim, and I mean it, you don't know what to do, you don't know what's going on, you don't know where to look, you know nothing. You're treading water.'

Another participant used a similar metaphor:

Quote FG 5.6:

Van die frustrasies was veral in die begin, dit was soos jy word in die diep kant ingestamp, en jy kan nie swem nie, en almal skarrel, en dit was totale chaos gewees.

[Translation]:
It was especially frustrating in the beginning. It was as if you were thrown into the deep end and you couldn't swim, and everyone was scuttling and it was all just total chaos.

One participant also mentioned that, when new assignments were received at the beginning of each week, it was chaotic. She said:

Quote FG 5.7:

'… dit was elke week, was daar twee of drie dae van chaos.'

[Translation]:
'…every week there were two or three days of chaos.'

The e-mail messages the participants sent to each other also indicated their experiences of confusion and chaos. A participant said the following:

Quote FG 5.8:

'Ek dink, ek meen as mens kyk ook, as mens kyk na die boodskappe soos wat ons … aan die begin was dit absolute chaos vir almal gewees …'

[Translation]:
'I think, I mean if you also look, if you look at the messages that we … in the beginning, you can see that it was absolute chaos for all.'

The following three e-mail messages sent by Hank, Camilla and Sanet also indicate the confusion and chaos experienced:

Quote EM 5.1:

Ja, Bakgat! Hardloop almal weg!
Gérard, Hannes[20] sê my jy het reggekry om op die Elearn2002 webblad te land. Hoe het jy dit gedoen? Ek sukkel my vrek en slaan al knoppe uit maar ek kom nie op nie. Die wizzard help my niks, bly net sê ek behoort aan geen groep nie maar tog kry ek e-pos.
Het jy moontlik raad??
Hank

[Translation]:
Yes, this is swell! Everyone is running away!
Gérard, Hannes tell (sic) me that you managed to get into the Elearn2002 website. How did you do it? I've struggled myself to death and still I don't manage. The wizzard is no help at all, only says I don't belong to a group despite the fact that I receive e-mails.
Any possible advice??
Hank

Quote EM 5.2:

Wie hardloop weg? Of is ek net te stadig op my voete om by te hou? Agterlangs is dapper vegters wat, if all else fails, hulle pose hou. Probeer weer om by die blad uit te kom deur op die URL te dubbelkliek! Dalk is jy die keer gelukkig. http://groups.yahoo.com/group/Elearn2002/files/ Rachel, we won't be offended if you write in Hebrew [sic] as the 'language of angst' seems to be the mother tongue!!!
C U all 2morro! Camilla

[Translation]:
Whose running away? Or am I just too slow to keep up? At the back are brave fighters who, if all else fails, keep their pose. Try to get into the site by double clicking on the URL. Maybe you get lucky this time. http://groups.yahoo.com/group/Elearn2002/files/ Rachel, we won't be offended if you write in Hebrew [sic] as the 'language of angst' seems to be the mother tongue!!!
C U all 2morro!Camilla

Quote FG 5.3:

Hi All
… Reading all the comments, and between the the lines, I think I'm not the only one who would like more time this time round. Please, isn't it possible to postpone all these assignments to next week- .... Really, I'm feeling as if I'm fooling around where 'angels' fear to tread! Please help!
Sanet

The participants did, however, reach a stage where the confusion decreased and they were more certain of how to approach their assignments. This is evident in the following quote:

[20] This is a pseudonym for the coordinator of the MEd (CAE) course.

Quote FG 5.9:

'… then after that, as we went along, we got used to the type of things that we had to do. It got easier for me.'

A participant said that, after she saw an example of what was expected of her, she found it easier to understand what she had to do:

Quote FG 5.10:

'… then when I saw what was the output, how did you have to hand it in, what, everything. Then, next week when you have a tribal task, then you know exactly more or less [sic] what to do.'

5.3.2 Recognition of own inability

Participants acknowledged their inability and lack of knowledge. They felt insecure, because they did not know the level of their peers' knowledge and skills. This made one participant feel extremely vulnerable. He said:

Quote FG 5.11:

'You sit there, totally naked and struggle. You do not know what the others knew [sic], and you know too little, but you do not know if they also know as little or less or more than you know.'

Having to do assignments as a member of a tribe made another participant feel exposed. He said:

Quote FG 5.12:

'Jy't niks wat jou bietjie half hoop gee in jou onkunde nie. En die feit dat jy 'n span is, dat jou dommigheid maak, jy weet, is so ontmasker.'

[Translation]:
'You've got nothing that can give you even half a hope in your ignorance. And the fact that you're in a group only unmasks your stupidity.'

The intense requirements of the module, combined with the factors mentioned above, led to participants struggling on their own at first. One participant said:

Quote FG 5.13:

'… die ding was so intens, dat, dit was daardie eerste ruk elkeen vir homself.'

[Translation]:
'… it was so intense. At first it was every person for himself.'

One participant said that the newness of the module content, as well as the teaching approach, made her very anxious:

Quote FG 5.14:

'n Groot bron van angs vir my was dat die goed so geweldig nuut … jou res van jou vorige lewe se kennis help jou niks.'

[Translation]:
'A huge source of anxiety for me was that it was all so new … none of your previous knowledge could help you.'

This feeling of insecurity led to one participant refraining from participating in tribal assignments. She said:

Quote FG 5.15:

'… ek was nie competent genoeg om in die span te kan deelneem nie, of dit wat, jy weet, dit was vir my baie moeilik.'

[Translation]:
'… I wasn't competent enough to participate in a group, it was very difficult for me.'

There were participants who participated in the tribal activities, despite their lack of knowledge. This is evident in the response of one participant, who talked about the nature of the e-mail messages participants sent to each other at a specific stage. She said:

Quote FG 5.16:

'Some people will just say: Ag nee, dit gaan sleg [oh no, it is not going that well]. And someone else will say: ja, met my ook [yes, with me too], and you'll get all this emails.'

One participant's inability inhibited his enjoyment of the module. He said:

Quote FG 5.17:

'The technical and my software knowledge was not enough to give me the freedom to enjoy it.'

Other participants recognised their lack of knowledge and skill, as well as the feeling of inadequacy it created. One participant said:

Quote FG 5.18:

'…sort of being afraid that I'm not going to cope. I won't be able to do this thing.'

Another participant felt that he could not do what was expected of him. He said:

Quote FG 5.19:

'Ek sukkel met hierdie ding. Ek kan dit nie doen nie.'

[Translation]:
'I am struggling with this. I can't do this.'

A third participant said:

Quote FG 5.20:

'In daardie tyd het ek, ek bedoel party mense moes my dra op daardie stadium, want ek het nie geweet presies wat om te doen nie.'

[Translation]:
'At that stage I had, I mean some people had to carry me, because I did not know exactly what to do.'

A participant explained her fear of being perceived as incompetent. She said:

Quote FG 5.21:

'I think one feel exposed when you are writing the emails … because you feel maybe I'm asking a stupid question or I'm just not understanding the problem, so now I'm asking somebody else for the answer …'

Another participant experienced similar anxiety to that of the above participant. She said:

Quote FG 5.22:

'Ja [yes], like Camilla said, to expose yourself. I'm going to make a fool out of myself by doing something or saying something …'

Another participant believed that their lack of competence caused aggravation and feelings of being exposed. He said:

Quote FG 5.23:

'Ek dink meer dit was 'n vaardigheidsvlak, wat daar nie was nie, wat 'n frustrasie veroorsaak het, en ek dink om so 'n ding goed te kan doen, 'n basiese …'

[Translation]:
'I think more that it was a level of competency that was lacking that was frustrating and I think to do such a thing well, a basic…'

A participant who did not have much confidence in her own abilities said that it took her three weeks before she could participate. However, she did not refrain from participating in tribal assignments. She said:

Quote FG 5.24:

'… it took me three weeks before I started to see a pattern – people had to carry me up to that stage.'

Another participant gained comprehension from being able to observe the manner in which they had to do assignments. He said:

Quote FG 5.25:

'I was not used to what …. Exactly knew what I had to do….the form in which the questions was put…..and then when I saw the output, how did you have to hand it in, what, everything. Then, next week …. Then you exactly know more or less [sic] what to do.'

After having feelings of chaos and not trusting their own abilities at the beginning of the module, the participants started to develop feelings of competence. One participant said:

Quote FG 5.26:

'Ek het intussen competent geraak, hetsy deur doelgerigte leer of accidental learning …'

[Translation]:
'In the meantime, I became competent, whether by goal-directed learning or accidental learning…'

Another participant reiterated the feeling of becoming competent. He said:

Quote FG 5.27:

'En later toe jy nou begin die competencies aanleer, en toe ek uitgevind het hoe werk die goed en hoe – toe gaan dit goed aan …'

[Translation]:
'Later, when you've learnt the competencies and when I found out how it all works – then things started going well.'

A third participant felt that he became competent by looking at the assignments, establishing a pattern and working through it. He said:

Quote FG 5.28:

'… ek voel vir my was dit, toe ek, soos Hendrik, soort van 'n patroon uitgewerk het, wat ons, ons kry ons ding, en dan begin ek deur hom te werk stap-by-stap-by-stap…'

[Translation]:
'I feel it was for me, when I, as Hendrik, sort of worked out a pattern, which we, we get it and then begin to work through it step-by-step-by-step…'

Anette's awareness of her lack of competence caused her to drop out of the module right at the start. She said:

Quote FG 5.29:

'You know, right at the beginning. But I just happened to drop it where I said: No, I can't.'

Anette made her decision known to the other participants. Her lack of participation is noted in the following e-mail from Anita, in which she informed the lecturer of marks obtained by team members in a group assignment, as well as who she voted off. She wrote:

Quote EM 5.4:

hallo linda
Ek stem af: Solina
Ander in my span
Anita – ek
Pedro - 22/25
Marietjie - 10/25
Camilla - 15/25
Anette - neem nie deel nie, observeer net.
groete
Anita

[Translation]:
Hello linda
I vote off: Solina
Others in my team
Anita – I
Pedro – 22/25
Marietjie – 10/25
Camilla – 15/25
Annette – does not take part, only observes
Regards
Anita

Participants who continued with the module further recognised the difficulties of the learning process.

5.3.3 Recognition of difficulty of the learning process

A participant provided a short description of her experience of the *CyberSurfiver* module. She gave a simple statement of how she experienced it:

Quote FG 5.30:

'Painful learning'.

The *CyberSurfiver* module's teaching approach challenged the learning styles of some of the participants. This is indicated in the following quote of one of the participants:

Quote FG 5.31:

'You learn through audio or through text, it's fine, but if you are a person who actually should be shown how to do this, you know, it doesn't work for you. That will, I think that will increase your uncertainty, your anxiety.'

The following quote also indicates that the teaching approach might have created feelings of isolation and that it was not congruent with the normal learning style of participants:

Quote FG 5.32:

'You want to work together with someone else in every task. Just to do it with someone else. To talk to them.'

One participant specifically indicated that the teaching approach challenged her learning style. She observed:

Quote FG 5.33:

'Yes, I think what online situations do to one, is it really impacted on your style of learning.'

The impact of learning styles on the students' experiences is not included in the scope of this study. However, different learning styles could have influenced the participants' experiences. It gave them an opportunity to understand their experiences and emotions, which indicated the onset of the second phase of the development process.

5.4 Second phase: Valuing, commitment and organising

The criteria that a statement had to meet in order to be classified as indicative of the second phase are provided in Table 5.5 in order to assist in the understanding of the process of the development that took place during each phase. Table 5.5 also shows the inclusion and exclusion criteria for statements indicative of the second phase of development.

Table 5.5: Denotations of Process of Affective Development – Second phase

	Second phase
Criteria	Verbal and text-based indications by participants that linked to the second phase of the process of affective development during the online module.
Inclusion for cluster	When participants verbalised affective experiences that indicated valuing, commitment and organising values to meet the requirements for the online module.
Exclusion for cluster	When participants verbalized affective experiences that did not link to the second phase of the process of affective development in the online module.

5.4.1 Dynamics of working in a team

The participants questioned the manner in which the tribes were selected and some disagreed with the 'put-everybody-in-a-tribe' approach. The participants were instructed to line up from the most computer-literate and having computers, to participants who were the least literate. Groups were formed by including participants who were most and least computer-literate. One participant indicated that this was done in an effort to ensure that there was at least one person with good computer skills in every group. He stated:

> **Quote FG 5.34:**
>
> *'En hy't ons ook laat staan, van die ouens wat die meeste rekenaargeletterd en computers het, heel voor staan, tot die ouens wat die minste het. So hy probeer in elke groep 'n baie goeie ou te plaas.'*
>
> [Translation]:
> *'And he let us stand, those guys who were most computer-literate in the front and those who were least at the back. This way, he tried to place a guy who is very good (with computers) in each group.'*

One participant felt that the pressure of being put in a specific group and the chaos that ensued at their division into groups set the tone for the rest of the module and impacted on their experiences. She said:

> **Quote FG 5.35:**
>
> *'Patsy het geweet sy wil nie deel wees van daai groep nie. Maar die ouens is so half gedruk gewees om daar te wees, en om deel te word van 'n groep. En die feit dat die eerste groepsindeling, wil ek amper vir jou sê, 'n chaotiese starting point vir baie van die ouens was, het 'n groot invloed gehad in deelname later aan.'*

[Translation]:
'Patsy knew she did not want to be part of that group. But they were sort of pressurised to be there and join a group. And the fact is, that the first division of groups was, I almost want to say, a chaotic starting point for lots of them and had a big influence on their participation later on.'

The way in which the tribes were formed convinced one participant of the person who would contribute most to the game. It indicated who stood to gain most from the experience. It was obvious that some participants were going to be loafers due to incompetency and that one or two others would be responsible for keeping the group afloat. The apathy of some members as a result of their lack of knowledge, skills and unwillingness to work in a team made it difficult to be successful as a group. Sometimes, in small group interactions, only one or two strong candidates exist and the rest either make insignificant contributions or none at all. This seemed to be the case with *CyberSurfiver*.

The problem was that, in order to pass the module, all participants had to do well enough in their assignments to make the grade. One participant was convinced, before they even started with their first assignments, that he and another participant would be the only two active members of their group. He said:

Quote FG 5.36:

'Ek het geweet daai aand toe ons daar gestaan het, het ek geweet, dat daai groep van ses, was dit net ek en Hendrik wat gaan speel. Ek het daai aand dit geweet. Ek het daai aand dit vir Hannes gesê ook.'

[Translation]:
'I knew that night when we stood there, I knew that in that group of six only Hendrik and I would be playing. I knew it that night. I also said so to Hannes that night.'

This indicates that, although the participants did not know what their peers' levels of skill and knowledge were at that stage, they could already form an opinion about it as a result of the manner in which the groups were formed.

While some people realised that they were going to play a significant role in the activities of their tribes, others knew that they would have to rely on more competent members and they were afraid that their incompetence would affect the progress and performance of their tribe members. This is evident in the following quote:

Quote FG 5.37:

'So die angstigheid is daar weens die feit dat almal wil wen. Everybody wants to win. Ek dink nie ons wou gewen het nie. Ek dink ons wou beter al die take reggekry het. Dis nie jy wat wil wen nie, maar jy's bang jy raak jou span …'

[Translation]:
'So the anxiety was there because of the fact that everybody wants to win. Everybody wants to win. I don't think we wanted to win. I think we wanted to do better in the assignments. It's not you who want to win, but you're scared that you will let your team…'

One participant indicated that he could not partake in tribal assignments, even though he wanted to, as he had problems with his computer. He said:

Quote FG 5.38:

'I wanted to do my share, and eventually I failed, because my computer crashed, and I voted myself out.'

Another aspect of their interactions, which was also evident to participants quite early in the game, was that they formed opinions about who would possibly win the game, and that their opinions strongly favoured the Web masters as potential winners. They were convinced that a person who served as Web master for one of the tribes would win because there were not many people who were competent enough to be Web masters. This is evident in the following quote:

Quote FG 5.39:

'En ek dink ook in 'n mate, ek meen, ek het dit van die begin af gedink, en ek dink ek het dit vir jou ook op 'n stadium genoem, is, ek weet verseker, die persoon wat gaan wen, is 'n persoon wat as 'n beginner, 'n Web master, as 'n Web master gekies is.'

[Translation]:
'And I also think, to some extent, I mean from the beginning I thought so, and I think I also mentioned it to you at some stage, that is, I know for sure, the person who, as a beginner, a Webmaster, was chosen as a Webmaster would win.'

This opinion was also expressed by a second participant, who stated:

Quote FG 5.40:

''n Persoon met al die, met die meeste tegniese kennis, gaan die persoon wees wat… Ja, want as die Web master afgestem is, dan sit jy met 'n probleem…'

[Translation]:
'The person with all the, with the most technical knowledge, will be the person who… Yes, because if the Webmaster is voted off, you sit with a problem.'

A third participant was also convinced that it would only be the Web masters who would be left in each tribe at the end. She stated:

Quote FG 5.41:

'Dan sit jy met 'n probleem. Jy kan nie jou Web master afstem nie, al wou jy ook. En, ek dink al die Web masters was hier aan die einde die wat oorgebly het.'

[Translation]:
'Then you sit with a problem. You can't vote off the Webmaster, even if you wanted to. And, I think it was all the Web masters who, at the end, were left.'

Once tribes voted tribe members off, these evictees had to form their own tribe, and continue with the assignments as the original tribes had to do. Unfortunately, the evictees failed in their attempt to keep up with the demands due to a lack of skills and knowledge. One participant who was not voted off indicated that none of them knew what to do. He said:

Quote FG 5.42:

'I think it's because they had to form a group on their own, and no one knew – nie een van hulle het geweet wat om te doen nie. [*'not one of them knew what to do'*].

Another participant reiterated this point of view:

Quote FG 5.43:

'They did not have that programming or technical know-how'.

In addition, another participant added that there was no person who was capable of taking the lead in the new tribe. He said:

Quote FG 5.44:

'And there wasn't a leader really, … Because the baddies fall [sic] out in the beginning'.

He was reprimanded by a participant who said:

Quote FG 5.45:

'Not the baddies!'

In response this person corrected himself and said:

Quote FG 5.46:

'Oh no… strugglers. I mean the people with the …swakkeres [weaker ones]. Sorry, ja [yes], it was the wrong word. But, um, and then obviously there's [sic] nobody strong enough to take the lead or to help them.'

It was thus clear that the participants who had certain levels of skills and knowledge and who were able to stay on top of things, did perceive the evictees as not being their peers anymore.

Not having enough tribe members who were competent enough, participants found help from outside their tribe. This is evident in the following quote:

Quote FG 5.47:

'Because it was frustrating sometimes that you'd ask something of a tribe member, and that tribe member is not online at that time, and then you are just thanking God that the other tribes' members are replying.'

The following remark indicates that the assistance rendered by other tribes was perceived as positive, and appreciated:

Quote FG 5.48:

'I must say that was a very positive aspect for me from the way the whole thing worked. That there was sharing, you know, outside …'

It appears that being in different tribes was not perceived as a main issue as was the issue with incompetent and inactive members in the same tribe. This is evident in the following quote:

Quote FG 5.49:

'It didn't go [sic] about the tribes.'

The tribes did exert some influence on the functioning of individual participants. At some stage, close to the final stages of the module, the participants were divided into different tribes, due to the evictees becoming more and the remaining individuals in the tribes became less. The participants did not have the same collegial interaction as they had before. This shuffling of tribe members was a negative experience for one of the participants who stated:

Quote FG 5.50:

'En later toe jy nou begin die competencies aanleer, en toe ek uitgevind het hoe werk die goed en hoe – toe gaan dit goed aan, maar toe kom daar 'n verskuiwing van tribe-lede aan, hier op die einde rond, en daar het weer 'n ander tipe frustrasie daarmee saamgekom, wat nou nie te doen het met die competencies nie.'

[Translation]:
'And later when you started learning all the competencies, and when I found out how the stuff worked and how – then it went well, but then came the shuffling of tribes, in the final stages and another type of frustration came with it, which had nothing to do with competencies.'

Another participant explained that 'political' incidents arose after the tribe shuffling, which caused frustration as well. However, she did not define what she meant by 'political' incidents. She stated:

Quote FG 5.51:

'… maar nou het daar ander dinge begin gebeur. Onderstrominge tussen die tribes het begin plaasvind. Politieke goed het begin plaasvind. Dit was nou weer 'n ander tipe frustrasie.'

[Translation]:
'… but then other things started to happen. Undercurrents started happening between tribes. Political stuff. That was now another type of frustration.'

When asked how this new situation differed from the original chaotic experiences at the onset of the module, one participant gave a meaningful response:

Quote FG 5.52:

'Ontnugterend.'

[Translation]:
'Disillusioning.'

The participant explained that the feeling of disillusionment was not connected to the chaos experienced with regard to skills, knowledge and competencies as when they started out in week one. It rather had to do with people, their peers who they got used to, and formed a relationship with. The changes made them feel exposed again, not in terms of the task to be done, but rather in terms of relationships. She said:

Quote FG 5.53:

'Ja, maar die vlak het geskuif. Jy's nou competent hiermee, jy kan nou dit doen, maar toe't daar, toe't rekenaars nie meer verband gehou hiermee nie. Dit het nou mense begin werk. … Dit is naamlik dat, jy weet, ons het gewoond geraak aan ons tribe. Ons het daardie verhouding gebou, en toe ons 'n nuwe tribe vorm, toe staan ons weer naak.'

[Translation]:
'Yes, but then the level shifted. You're competent with this, you can do it, but then, then computers had nothing to do with it. It now started working people. …That is namely, you know, we got used to our tribe. We built that relationship and when we formed a new tribe, we stood naked again.'

A comment made by a participant may hint at uncomfortable situations where participants were not comfortable with one another. It was then suggested that a separate interview should be held with the participants who were perceived as inactive. The participant remarked:

Quote FG 5.54:

'Ek dink dis belangrik dat daar 'n aparte groep moet wees, eintlik, wat bestaan net uit die wat onaktief was.'

[Translation]:
'I think it is important that there must be a separate group, really, that consists only of members who were inactive.'

This participant then turned his attention to Barbara and said to her:

Quote FG 5.55:

'But Barbara, you have not been telling the truth. You haven't said everything that you said to me about your feelings.'

When the participants were then asked what specifically happened, Barbara responded in a manner that showed discomfort. She said:

Quote FG 5.56:

'They are general… The person is… Support from the people don't … It stays a person that you… Yeah, that's right. It can feel, it can see, and then answer you…'

The lack of elaboration on the aforementioned situation prevented a clearer comprehension of the negative issues that were experienced.

It is clear that the activities of the module resulted in group dynamics that impacted on the participants' interactions with one another. In the next section, attention is focussed on the impact of the module on the participants' lifestyle.

5.4.2 Lifestyle changes

One participant was very explicit when she explained how the *CyberSurfiver* module impacted on her. She said:

Quote FG 5.57:

'I changed my lifestyle.'

When asked to explain how she responded:

Quote FG 5.58:

*'Well, I had to sleep in the afternoons, because I have a disabled daughter. So when I come home from school, I had to, you know, give her the attention and things like that and then I took a kip (*nap*) for a few hours, and then I got up at seven o'clock and then I went online. And at that stage I couldn't work, so, you know, until about nine o'clock or so, we had great fun with her, you know. She couldn't understand I was talking to the computer in friendly terms, when in fact, I was talking to Gérard, and she just couldn't understand this. She knew that I was talking to the computer. It's rather unflattering, and …, but then when she went to bed, I actually literally started working from eleven o'clock 'till three o'clock, four o'clock in the morning.'*

The lifestyle of other participants changed as well. One participant had to accommodate his wife and baby. He said:

Quote FG 5.59:

'No, I had to reschedule my life as well, around my baby and my wife as well, so, I also started at ten o'clock when they went to sleep.'

Another participant merely stated that she had to work at night. She said:

Quote FG 5.60:

'I worked in the morning. I couldn't work at night.'

One participant attributed his lifestyle decisions to economic issues as well family considerations. He said:

Quote FG 5.61:

'It wasn't only family difficulties; it was the money thing as well, because, if you work at home, you work at night. After seven.'

Another participant perceived the impact on her lifestyle as drastic. She said:

Quote FG 5.62:

'Ja [yes], you just stopped sleeping.'

This remark hints at the physical strain that participants experienced. A participant explained his experience by comparing it to white-river rafting. He said:

Quote FG 5.63:

'It was very hard right through the whole thing, and if I had to compare it to anything, I would say it's like white-water rafting – what do you call it?'

One of his peers confirmed:

Quote FG 5.64:

'White-river rafting.'

He then continued with his explanation, saying:

Quote FG 5.65:

'That you're on the river, and there's no way that you can get off, because – It's very exciting. It's painful. I mean I, my muscles, my feet were swollen, my back was sore.'

Another participant also said that the online experience was physically demanding. She said:

Quote FG 5.66:

'It was a physical thing. It was a physical challenge, a tremendous physical challenge.'

When asked, 'what made it such a physical challenge?', a participant explained as follows:

Quote FG 5.67:

'I was sitting in front of the computer and struggling.'

One participant explained that working online was challenging due to the concentration that it required. She said:

Quote FG 5.68:

'We were doing this all the time. Your - I mean, the mouse is moving all the time. It's difficult. It was the challenge in it.'

Whilst communicating with the lecturer, Linda, on *Yahoo! Messenger*, the lecturer complained about computer problems she was experiencing. Mindy used this opportunity to draw a comparison between Linda's computer and her own physical condition. Their online conversation is recorded below:

Quote YM 5.1:

linda_van_ryneveld_sa (09:19:54 PM): Sorry Mindy, my rekenaar is besig om 'n nasty gewoonte daarvan te maak om sommer self te restart wanneer hy daarna voel!
mindy (09:19:09 PM): Ek dink jou rekenaar voel soos ek - behalwe dat my batterykrag gevaarlik laag begin raak en ek nie meer die krag het vir "restart' nie! Ek sukkel nou al 3 dae lank om my puzzle op my site te kry en niemand se advies help op hierdie oomblik nie!!

[Translation]:
linda_van_ryneveld_sa (09:19:54 PM): Sorry Mindy, my computer is busy developing the nasty habit of restarting whenever it feels like it!
mindy (09:19:09 PM): I think your computer feels like me – except that my battery power is becoming dangerously low and I don't have the energy to 'restart.' I've sruggled (sic) for 3 days to put my puzzle on my site and nobody's advice is helping at this moment!

The physical and psychological impact is also evident in the following e-mail sent by Mindy to her peers. She wrote:

Quote EM 5.5:

Ek het al sulke moerse knoppe in my nek en skouers van stress [sic]!! ...
Mindy

[Translation]:
I have such @#$% knobs in my neck and shoulders from stress!!
Mindy

The physical strain is also evident in an e-mail message that Joanita sent to Mindy at nearly midnight at the end of the second week. She wrote:

Quote EM 5.6:

Mindy,
Ek gaan net eers so 'n uurtjie slaap. Ek's vodde. Sal jou SMS as ek weer werk. Ek het nou iets probeer maar toe ek fit wou ftp toe is hagar af - of altans dit is wat my liewe lawwe rekenaartjie sê.
J

[Translation]:
Mindy,
I am first just going to sleep for about one hour. I feel tattered. Will SMS you when I work again. I have just tried something but when I wanted to ftp, hagar was off – or at least that is what my dear silly little computer says.
J

Camilla apologised to Gérard for misspelling his name, because she was tired. She wrote an e-mail message:

Quote EM 5.7:

Gérard,
I think lack of sleep caught up with me! Sorry about the spelling of your name!
Camilla

Mindy also sent an e-mail message to Gérard in which she mentioned that she was very tired due to a lack of sleep. She wrote:

Quote EM 5.8:

Nee, ek sukkel nog met die FTP'ing van my webblad na Hagar. En dit wil vir my voorkom asof Absa se server my nie gaan toelaat om in Hagar te werk nie - so ek sit met 'n moerse probleem! Laat weet my asb as jy iets reggekry het - het net 2 ure se slaap in en ek voel soos 'n zombie!
Groetnis
Mindy

[Translation]:
No, I still struggle with the FTP'ing of my web site to Hagar. And it appears to me as if Absa's server is not going to allow me to work in Hagar - so I sit with a @#$% problem! Please let me know when you got something right – got only two hours sleep in and feel like a zombie.
Regards Mindy

It is clear that the module was experienced as physical demanding and that participants had to sacrifice rest and sleep. However, the development of the participants is evident in the manner in which they started to manage themselves despite the physical strain. The next section focuses on how the participants used self-management and self-talk as coping strategies.

5.4.3 Self-management and self-talk

Participants started to take charge of their situation. This is evident in the following quote of a participant who said:

> **Quote FG 5.69:**
>
> *'… and the dates (for assignments) were coming in, and I didn't know which day I had to bring in what. So I made a table just to be able to finish the stuff exactly'.*

Participants also exhibited their acceptance of their inabilities and abilities, by means of self-talk and personal motivation.

> **Quote FG 5.70:**
>
> *'I really wanted to do good [sic] in this MEd course from the beginning.'*

Another participant explained his attitude and personal motivation to indicate what made him persevere. He said:

> **Quote FG 5.71:**
>
> *'Because I'm one of those people: when there's something up for grabs, I really want to do well, and hope that maybe in the end, maybe you'll just sole [sic] survive and win the game …'*

Another participant added that it was not worth quitting when one has worked so hard. He said:

> **Quote FG 5.72:**
>
> *'Also, by the time you wanted to bail, you've done so much, it's really not worth it.'*

Another participant indicated how experiences of illumination contributed to her motivation. She said:

> **Quote FG 5.73:**
>
> *'… en jy kom eventueel by daardie a-ha-belewenis uit, dan wil jy jubel van opgewondenheid, want jy't uiteindelik bereik wat jy aanvanklik nie mooi geweet het waarna toe is ons nou oppad nie.'*
>
> [Translation]:
> *' … and you eventually get to that a-ha experience, then you want to rejoice from exitement, because you have eventually reached that (point) which you initially did not know exactly where you were heading to.'*

The following quote illustrates commitment and a determination to succeed in the face of a pending deadline and server difficulties:

Quote EM 5.9:

Date: Wed, 31 Jul 2002 08:40:49 -0000
… I even went as far as to find out if there are [sic] any Internet Cafe's close-by (I am working in the centre of JHB city), but cannot find any! I will therefore have to complete my assignment the moment I am back at home - which is only 18:00! Unfortunately I will have to compromise somewhere along the line, but as the saying goes: When the going gets tough, the tough gets going!!
Groetnis [regards]
Mindy

Some participants engaged the involvement of family members as part of their strategy to manage the situation. One participant indicated the willingness of family members to assist with the situation. However, she also emphasised that it was an active process of managing her own efforts and those of her family members.

Quote FG 5.74:

'No, my family just helped me.'

Quote FG 5.75:

'Ja [yes], but I'm the person, with my studies, I'm like a manager. You do that, and you do that. That's the way I am.'

Joanita took charge of the tribe that she was Web master for by unilaterally stating what she expected from them in an e-mail message. Her e-mail also shows her level of self-efficacy, which is the belief that one is capable of taking control of a situation. She wrote:

Quote EM 5.10:

Members of Tribe 3
It seems that because of a lack of interest and availability and electronic support I will have to do the website for the tribe. I am still not sure how or when but I will figure something out. Due to a busy schedule I will have to do this during the early hours of Saturday morning. ALL contributions must reach me BEFORE 20h00 on Friday. Material that is not on my computer at 20h00 will unfortunately not be included in the site.
Joanita

Bob also took charge by mailing the second week's assignment to the members of his tribe to let them know that the assignment had been uploaded even though all of them did receive an e-mail message from the lecturer. He set deadlines and made suggestions not only with regard to the assignment but also with regard to times and structure of their online collaboration. He wrote:

Quote EM 5.11:

Hi Tribe 2:
Here is the assignment for week2. All the work needs to have been [sic] completed by Wednesday 17:30 after which other tribes will evaluate us.
Here is the assignment: …

> *… Can I suggest that we all download these programs over the weekend, when telephone time is cheap and then meet on Monday evening at say 8:00 pm. We can chat for a while using* ***NetMeeting*** *and then* ***Yahoo Messenger****. We can then draw up a table to compare the two which will be posted on our website.*
> *Let me know how this suites most of you.*
> *Bob*

The participants took charge of their situation by breaking the only-online communication rule, as mentioned in Chapter 4. One participant specifically mentioned that she phoned some of her peers, as she did not have time to wait for her e-mail messages to be answered, because it would mean that she would have less time to sleep. Refer to Quote 4.24 in Chapter 4.

Communication between the lecturer and Sanet on *Yahoo! Messenger*, which highlights the lack of sleep and tiredness experienced, demonstrates that regardless of these problems, the participant perceived the situation as an opportunity for personal growth. Part of this conversation is quoted below:

> **Quote YM 5.2:**
>
> *linda_van_ryneveld_sa (10:43:48 PM): Foeitog, ek wens ek kon almal van julle wat so hard werk en committed is vir 'n naweek wegstuur!*
> *sanet102002 (10:57:06 PM): Toemaar, die ander voordele soos persoonlike groei, ens. …is net so goed!*
> *linda_van_ryneveld_sa (10:45:08 PM): Hou maar daaraan vas as die dinge rof raak!*
> *Sanet102002 (10:57:56PM): Ek dink ek gaan nou slaap, ons moet in elk geval alles oordoen! lekker slaap!*
>
> [Translation]:
> *linda_van_ryneveld_sa (10:43:48 PM): Hi shame, I wish I could send all of you who are so hardworking and committed away for the weekend!*
> *sanet102002 (10:57:06 PM): Don't worry, the other benefits such as personal growth, etc. …are just as good!*
> *linda_van_ryneveld_sa (10:45:08 PM): Hang on to that when things get tough!*
> *Sanet102002 (10:57:56PM): I think I am now going to sleep, we anyway have to do everything again! Sleep well!]*

It is clear that the participants took active responsibility for their situations and that they were able to motivate themselves through cognitive self-talk. Regardless of extreme tiredness and lack of sleep, the participants exhibited further development with regard to their experiences of the *CyberSuriver* module.

5.5 Third phase: Internalisation

To assist in the understanding of the process of the development that took place during each phase and when a statement was considered to be indicative of the third

phase, the criteria for inclusions and exclusions of statements in the third phase of development are provided in Table 5.6.

Table 5.6: Denotations of Process of Affective Development – Third phase

	Third phase
Criteria	Verbal and text-based indications by participants that linked to the third phase of the process of affective development during the online module.
Inclusion for cluster	When participants verbalised affective experiences that indicated internalisation in order to meet the requirements for the online module.
Exclusion for cluster	When participants verbalized affective experiences that did not link to the third phase of the process of affective development in the online module.

5.5.1 Sense of achievement

It appears that participants made a cognitive decision with regard to their efforts and attempts to complete the module, regardless of the problems they experienced. One participant stated as follows:

Quote FG 5.76:

'*You know you had to do it.*'

One participant expressed his excitement and pride when he managed to solve a problem and achieve the outcomes as set by the lecturer: He said:

Quote FG 5.77:

*'En, toe ek nou uitendelik sien hier hardloop hierdie (?) oor my skerm, toe's dit soos in, ek is moerse opgewonde ...Ek het onmiddellik vir haar (*dosent*) op **Yahoo! Messenger** gesê, kyk, my goed is op, en ek voel baie impressed met myself.'*

[Translation]:
*'And when I finally saw the (?) running over my screen, it was like, I was @#$% excited ...I immediately said to her (lecturer) on **Yahoo! Messenger**, look, my stuff is on, and I feel very impressed with myself.'*

Another participant who said the following echoed the experience of feeling good about what had been achieved:

Quote FG 5.78:

'... die oomblik as jy dit gaan regkry, dan is, soos sy sê, dan is dit fantasties!'

[Translation]:
' … the moment you are able to do it, then it is as she said, then it is fantastic!'

A third participant identified a feeling of feeling pround of himself. He said:

Quote FG 5.79:

'Dis baie lekker en jy's trots op jouself.'

[Translation]:
'It is very nice and you are proud of yourself.'

The following quote indicates how Mindy told the lecturer on ***Yahoo! Messenger*** that she was pleased with herself and her efforts with regard to *Javascript*:

Quote YM 5.3:

linda_van_ryneveld_sa (08:22:04 PM): Mindy, jou Javascript is baie 'cool'! En ek dog dis die eerste keer dat jy jou hande aan webbladsye slaan!
mindy (08:19:12 PM): Dankie baie - ek moet se ek is nogal chafft (sic) met myself!!!

[Translation]:
linda_van_ryneveld_sa (08:22:04 PM): Mindy, your Javascript is very cool! And I though it was the first time you touched a web site!
mindy (08:19:12 PM): Thanks a lot – I must say I am quite chuffed with myself!!!

Another person who was elated about her efforts was Rachel. After completion of the module, she wrote an e-mail message to all the participants that read as follows:

Quote EM 5.12:

Is There Someone There???
: - > hey hey 8 -] Wow maan [sic]
I feel GREAT!!!!!!!!!!!!!!!!!
Rachel

5.5.2 Cohesion

It seemed that the *Interwise* session organised for the participants influenced not only their communication activities positively, but also their feelings with regard to being part of a group. Regardless of being in separate tribes, participants communicated with those not in their own tribes. This is evident in a response provided by one participant with regard to communication between the different tribes. She said:

Quote FG 5.80:

'Nee, nee. Inteendeel, ons het redelik baie gekommunikeer.'

[Translation]:
'No, no. Far from that, we communicated quite a lot.'

Another participant echoed that communication with members from other tribes was positive, by saying:

Quote FG 5.81:

'I must say that was a very positive aspect for me, the way the whole thing worked. That we were sharing you know, outside…'

The Interwise session did not only influence communication patterns, but also group dynamics and the motivation of participants. A participant who made a statement to that effect during the focus group interview said the following:

Quote FG 5.82:

*'Ek weet nie of julle dit ook so beleef het nie, maar van die **Interwise** sessie af, het – dit was so 'n sinchroniese ding wat ons eers nie kon gedoen het nie – was daar vir my absolute motivering wat uitgekom het, en die hele groepdinamika. Dis hoe ek dit ervaar het, en ek dink die rede daarvoor sal wees, waar jy miskien by jou rekenaar sit en al daai goed, het hierdie ding skielik lewe gekry, en het jy jou mede-studente se stemme gehoor.'*

[Translation]:
*'I don't know whether you experienced it the way I did, but since the **Interwise session –** it was a synchronic thing which at first we could not do – for me there was absolute motivation that came from it, and the whole group dynamic. This is how I experienced it, and I think the reason for this will be, where perhaps you sat in front of your computer and all those things, this thing suddenly came alive, and you heard your fellow students' voices.'*

When asked how hearing another person's voice online was different to previous experiences, one participant explained as follows:

Quote FG 5.83:

*'Warmer. Bietjie meer persoonlik, en dit voel nie dis jy teen die **Internet** nie. Dis bietjie jy en iemand anders teen die internet. Dit gee meer persoonlikheid aan die ander persoon.'*

[Translation]:
*'Warmer, a bit more personal, and it does not feel as if it is you against the **Internet**. It is a little bit of you and someone else against the **Internet.** It gives the other person more personality.'*

Another participant explained that the computer then obtained 'human' elements that were not there before. She said:

Quote FG 5.84:

'The computer was humanised. It was like a person. It had feelings. It had eyes. It had ears, unlike when you use it as a machine. … But it was really nice.'

This view that the human element made it enjoyable was emphasised by another participant who stated:

Quote FG 5.85:

'Dit was wat dit vir my lekker gemaak het.'

[Translation]:
'That made it enjoyable for me.'

The motivational aspect provided by human contact was highlighted by a participant. The participant perceived the human contact as an enjoyable experience that motivated her to persevere. She further explained the 'humanness' that the computer provided and said:

Quote FG 5.86:

'Vir my was dit wat my laat aanhou werk het, en aanhou probeer het, en aanhou karring het aan hierdie goed wat ek nie altyd regkry nie. Want die feit dat, dit was nie net 'n rekenaar nie. Dit was nie net 'n skerm en 'n keyboard nie, en ek het 'n probleem nie. Daar was ander ouens wat saam met my in die game was. Daar was ouens wat saam met my gesuffer het, so die feit dat daar 'n gesig agter die skerm was, was vir my positief gewees. Dit was vir my motiverend gewees.'

[Translation]:
'For me that was what made me keep on going, and keep on trying, and keep on fiddling with the stuff that I could not always get right. The fact was, it was not only the computer. It was not only a screen and a keyboard, and me with a problem. There were others who were with me in the game. There were others who suffered with me, and the fact that there was a face behind the screen was very positive for me. It was very motivating.'

A participant who also mentioned that he received support only from his peers explained the bond that developed between them. He said:

Quote FG 5.87:

'Yes, yes. And that, I think, you know, kind of bound us together, and that was a support for us. Because my sole support came just purely from my colleagues. From the people I studied with.'

At the end of the module, participants had to write articles on topics related to their online experiences. The following e-mail sent by Rachel serves as further indication of how the feeling of cohesion developed throughout the module. Note that Rachel called her peers 'friends'. She wrote:

Quote EM 5.13:

Hi friends and fellow students
Most ouf our communication at [sic] this course was an asynchronies [sic] communication using tools like Yahoo elearning2002 forum, WebCT and emails. At the same time we experienced online communication by using Yahoo messenger, Netmeeting and Interwise. I am very interested in what kind of feeling you

experienced. Would you kindly go to my website and do a quick survey (only two questions and a click of a mouse!) regarding these issues. You will see a link by the name 'new Form' …
Thanks in advance, Rachel

The cohesion experienced by the participants led to positive affective experiences. The positive manner in which participants experienced the module ensured that they continued with it.

5.5.3 Staying

Participants who completed the module saw themselves as people who did not give up, even though some considered doing that in the beginning. When asked about their reasons for staying on the course and completing the *CyberSurfiver* module, participants had the following to say:

Quote FG 5.88:

'Yes I loved it. It was the most creative module I've had last year. The idea fascinated me, but I hated. Also, by the time you wanted to bail, you've done so much it's really not worth it.'

Quote FG 5.89:

'I enjoyed it.'

Quote FG 5.90:

'You will not give up. You put in too much'.

Quote FG 5.91:

'… not after doing all that.'

Quote FG 5.92:

'… there is nothing democratic about the decision, where we do it, or not, or whether we cope with it or not. We have to cope with it, so from the beginning, you can't take this…attitude and go into another environment and say okay, this will be the same … because here, from the start, you know you had to do that.'

Quote FG 5.93:

'want ek het toe nou al 'n kursus daar gedoen die vorige week. So dis vir my weer: as jy te onbekend met 'n ding is, is daar nie baie lekker goed daaraan nie. As jy êrens 'n strooihalmpie het wat jy regkry en herken, dan skielik beleef jy dit ook baie beter.'

[Translation]:
'because by then I have done a course there, the week before. So for me it is that, if you are too unfamiliar with a thing, it is not very nice. If you suddenly find a straw that you can grasp at, something that you get right and recognise, then suddenly you also experience it much better'

Quote FG 5.94:

'Because we learnt so much. We learnt a tremendous amount of work. New things.'

Quote FG 5.95:

'I just want to add something about staying, and that is the fact that we didn't have time, I didn't have time to think I could quit. I just didn't have time. You know, I was in this thing, and I never stopped to think – didn't even consider it. I didn't even consider it, because there was no time to consider that that was – could possibly be- an option.'

It is clear that the participants found various reasons for staying on the module. One of these reasons was mutual support. This seems to have indeed been the case. Not only did the participants receive support from their peers, but they provided support to their peers as well.

5.5.4 Giving and receiving support

This discussion on support relates to the discussion on support in Chapter 4. This discussion specifically refers to advice on how to do assignments and perform tasks. Not only did the participants receive support, but they also gave support to their peers. Some participants explained specific support they received from their peers. This is evident in the quotes presented below. From the quotes it is clear that support was provided by Bob to Gérard via e-mail after Gérard made an inquiry about information on a web site. The e-mail read as follows:

Quote EM 5.14:

Hi Bob
I see you have changed your island picture on the hagar-site. How did you do it?
I feel a bit dof [stupid]!

Quote EM 5.15:

Gérard
Gérard, in your directory on Hagar there is a subdirectory called images. In this there is a file called shelter.gif. Just replace it with the file you want... also called shelter.gif.
Cheers,
Bob

Quote FG 5.96:

'... then he said: I also don't know. Did you try this? Did you try that? And then suddenly you don't feel so stupid at all ...'

Quote FG 5.97:

'But then on the other hand, I also want to say that none of those things that we had to do – I don't know, if one of them asked me about the HTML, I would have given them, because I didn't know HTML. I didn't go to the course. I found that

Netscape has a composer that works like Microsoft word. And you work in Netscape composer, and you save it on your HTML file, and you put it on your composer, and it looks wonderful.'

Quote FG 5.98:

'Three of us, that's me and Karel and Camilla, did a HTML course in April, before this, and it helped us tremendously. We were very glad that we did it.'

Quote FG 5.99:

'Yes. In other words, we got support from people from the other tribes, and we supported people from other tribes, because they were online at that time when we were online.'

Support from family members also played a large role in the *CyberSurfiver* activities of participants. The extent of the support is evident in the following quote:

Quote FG 5.100:

'I would go so far to say if you didn't have the support of your family, you wouldn't be able to complete this. My wife never – I must just say this – my wife never complained, only at the end did she complain about the telephone account, but she understood that, or she didn't complain that I worked at night, until one, two o'clock in the morning. And, if she complained then, and moaned and so on, I didn't know if I would have finished it.'

Another participant indicated how she managed her lack of typing skills by asking her daughter for support. She said:

Quote FG 5.101:

'I sometimes used my daughter. She typed for me. ….I needed someone to type fast, because my typing is too slow.'

Another participant felt that by involving her children she could tap from their knowledge with regard to online or Internet issues as she was convinced that they knew more than she did. She said:

Quote FG 5.102:

'Ek het byvoorbeeld, as ons 'n opdrag gekry het, het ek gekyk in hoe 'n mate ek my kinders daarby kon betrek het, wat waarskynlik meer tyd en kennis as ek het.'

[Translation]:
'For example, when we received an assignment, I saw to what extent I could involve my children, who probably had more time and knowledge than what I had.'

One participant felt that he did not experience much support from his family. He said:

Quote FG 5.103:

'I want to say I did not have so much support. My only support was my internal motivation. That was my only support.'

Because the participants' feelings were investigated, Krathwohl's Taxonomy for Affective Learning is used to evaluate their development. It is clear that participants elicited support from not only their peers, but their family members as well when they felt a need for support.

5.6 Assessment according to Krathwohl's Taxonomy

Krathwohl's Taxonomy has been discussed in Chapter 2 of this study. According to Huitt (2001) and Van der Horst and McDonald (2001:39,40), the five levels of the taxonomy, organised according to commitment and described in terms of increasing levels of complexity regarding attitudes and emotional responses, are:

- Level 1: Receiving or attending
- Level 2: Responding
- Level 3: Valuing
- Level 4: Organising
- Level 5: Characterisation/Internalisation

The best manner to prove that the participants did develop from level one to five of Krathwohl's Taxonomy is to provide evidence in their own words. The evidence is provided as quotes from e-mail messages, focus group interviews' transcripts and chatroom discussions on *Yahoo! Messenger*. Note that the verbs which are indicative of the level of affective development of the participants are presented in a bold font.

5.6.1 Receiving or attending

At the first level, according to Krathwohl's Taxonomy, the student becomes aware of or sensitive to something. For example, the student is willing to listen to the lecturer. The student must become receptive for the teaching event to be successful. The right-hand column of Table 5.7 provides verbs that can be utilised to assess the student's attainment of this level.

Table 5.7: First level of Krathwohl's Taxonomy for the Affective Domain [Adapted from Van der Horst and McDonald (2001:39) and Huitt (2001)]

Level 1	Action / Verbs
Receiving or attending	Asks, chooses, selects, follows, holds, gives, etc.

The quotes in this part of Chapter five are provided as evidence that the participants in this study indicated their receptiveness for the learning opportunities created for them in the *CyberSurfiver* module.

Bob made an enquiry with regard to assignments. As the *CyberSurfiver* module was a collaborative online module and constructivistic in nature, asking did not pertain to questions asked to the lecturer only, but also included questions posed to peers. The applicable verb according to the taxonomy for Bob's e-mail message is **asks**. He wrote the following e-mail message:

Quote EM 5.16:

Hi,
Does anyone know where the information on assignments due for next week is posted?
Bob

Joanita replied to Bob's e-mail message, and the appropriate verb with regard to her e-mail message is **gives**. She wrote:

Quote EM 5.17:

Maybe this is the answer to your questions:
'Linda did you post us an update of the (rest) of the assignments?? ' (from Hendrik)
Her answer:
'Not yet, I will put them up tomorrow once all the other assignments are in (the cut-off time is 12:00). I think it is fair to give all the tribes the same amount of time.'
Joanita

Hendrik's e-mail as quoted by Joanita is also indicative of **asking**. E-mail sent by Solina also falls in the first level. Solina wrote:

Quote EM 5.18:

Linda please help me I can't find games, and tasks for different tribes/groups.
Frustrated.
Solina

Mindy also **asked** for assistance with regard to her own Web page. She wrote:

Quote EM 5.19:

I will be reporting on the MindManager tool. I am also in the process of creating my own web page (ek sukkel natuurlik my alie af [I'm struggling] - but I am getting there!!) I would just like to know how do I get this polling thing onto the site - if I create the poll in Yahoo, how do I link it directly to my web page? or is there a freeware programme that I am not aware of that I can use to load the poll directly onto my site? (did a search by the way, but couldn't find anything!!) - ek hoop nie ek praat Grieks nie! [I hope I am not speaking Greek.] All of this are really very new to me HELP!!
Sanet that explanation of yours re IP - will you please explain it to me in English, as I have now (sic) idea what you guys are talking about!!

Misu **asked** how to do screen dumps. He wrote:

Quote EM 5.20:

Typing Score: 22 WPM
Please help : HOW DO I DO A SCREEN DUMP OF MY SCORES
Misu

Mindy also **asked** Joanita if she had *Internet Explorer 6*. She wrote:

Quote EM 5.21:

Joanita, het jy Internet Explorer 6? Ek het die vorige version en wou version 6 gisteraand van die Internet download, maar dit het te lank gevat.
Groetnis
Mindy

[Translation]:
Joanita, do you have Internet Explorer 6? I have the previous version and wanted to download version 6 from the Internet last night, but it took too long.
Regards
Mindy

The next level of Krathwohl's taxonomy is **responding**.

5.6.2 Responding

Responding refers to the student's motivation to learn. For example, the student must be willing to respond and to adhere to certain practical rules in an online course. The student not only is aware of the rules, but actively responds to them. The second level relates to the provision of evidence from the student that s/he is aware of the learning opportunities created and therefore responds accordingly.

Table 5.8: Second level of Krathwohl's Taxonomy for the Affective Domain [Adapted from Van der Horst and McDonald (2001:39) and Huitt (2001)]

Level 2	Action / Verbs
Responding	Answers, writes, assists, discusses, conforms, helps, obeys, performs, presents, reports, tells, writes, greets, etc.

The right-hand column of Table 5.8 contains verbs that can be utilised to assess the student's attainment of this level. The quotes below provide evidence that the participants in this study indicated their response to the learning opportunities created for them in the *CyberSurfiver* module.

The following e-mail message sent by Hendrik indicated his **conformity** to the prescribed instructions of an assignment. He also **reported** his performance scores to the lecturer as well as their peers. He wrote:

Quote EM 5.22:

From: Hendrik
An update of my Latest Score: Gross speed = 70 wpm
Accuracy = 98%
Net Speed = 69 wpm

Misu sent a similar message. Also refer to Subsection 5.6.1. This demonstrates that more than one aspect of development can be evident from one incident.

Gérard **responded** by sending the following e-mail message to Misu who wanted to know how to perform a screen dump. Gérard wrote:

Quote EM 5.23:

Hi Misu
Press 'print screen' on your keyboard and the computer will copy the contents of the screen onto the clipboard. Open Word and click on 'paste' - the screen dump will then be copied to word.
Hope this helps!
Gérard

Mindy requested assistance from Joanita with regard to *Internet Explorer 6* (read Quote EM 5.21). Joanita replied:

Quote EM 5.24:

Mindy, kry jou site gereed en sodra en (sic) weet wat gaan hier aan kan jy die files vir my e-pos dan kyk ek of ek dit kan ftp.
J

[Translation]:
Mindy, get your site ready and as soon as I know what is going on here you can e-mail me your files then I will see if I can ftp them.

In the following e-mail Gérard **greets** his peers and then **reports** on the establishment of his own website. He wrote:

Quote EM 5.25:

Hi all
My personal website is at http://uk.geocities.com/… 2002/
Feel free to let me know what you think.
Gérard

Bob offered **assistance** to Pedro, Joanita and Misu, who missed the deadline, with their assignments. He wrote:

Quote EM 5.26:

Hi P, J and Misu,
I did not receive anything from you for the tribal web page, or your personal assignments. The deadline is now past, but please let me know if you need any help.
Bob

Gérard requested assistance from Bob on how to change a picture on a website. Bob **told** Gérard what to do in an e-mail message (refer to Quotes EM 5.14 and EM 5.15).

The following quote is from a *Yahoo! Messenger* **discussion** between the lecturer and Sanet with regard to the nature of an assignment. This quote gives evidence that participants had moved to level two of the taxonomy. They wrote:

Quote YM 5.4:

sanet102002 (10:00:20 PM): Hi Linda
linda_van_ryneveld_sa (10:22:39 PM): Hallo Sanet!
sanet102002 (10:36:40 PM): Hi Linda, I am on-line with Camilla as well- ons dik [sic] ons het die kat aan die stert beet
linda_van_ryneveld_sa (10:24:48 PM): Ek het pas met Pedro gesels, dit het vir my ook so geklink
sanet102002 (10:38:27 PM): Die basis moet dus wees oor wat 'learning' oor die web behels- wat ons vir die toets moer leer?
linda_van_ryneveld_sa (10:26:48 PM): Die toets maak deel uit van Week 6 se assignments.
linda_van_ryneveld_sa (10:27:02 PM): Dit gaan handel oor al die aspekte wat ons in die module gedek het
linda_van_ryneveld_sa (10:27:24 PM): Oa ook oor die artikels wat julle moes lees, en die konsepdokument wat julle nou optrek
sanet102002 (10:39:46 PM): cicilvr: Internet- toepassing van les, navorsing vir taak, drill, simulation tutorial, game, kommunikasie tool, skppende tool
camilla : Produksie tool vir leerders.
camilla: Onderwysers: beplanning, ondersteuning en opleiding, recources, administrasie, verslaggewing
linda_van_ryneveld_sa (10:28:31 PM): Die concept map moet 'n holistiese beeld gee van die veld van e-learning
linda_van_ryneveld_sa (10:29:27 PM): Die idee is nie om net kernwoorde neer te pen nie, maar om vanuit julle eie ervaringe asook die bestaande literatuur (wat

julle moet gaan soek op die Web) volledige notas te maak oor die onderskeie aspekte wat aangeraak word
linda_van_ryneveld_sa (10:30:04 PM): Die tribe moet konsensus bereik oor die aspekte wat van belang is.
linda_van_ryneveld_sa (10:30:36 PM): Ek dink bv aan goed soos Learner Characteristics en die Rol van die online fasiliteerder
sanet102002 (10:44:27 PM): Linda, ek het nou 'n beter idee, maar met 'n nuwe tribe, die artikels wat ons moes opsoek, die opdatering van ons eie website, is dit nie 'n bietjie baie vir een week nie? Ek is nie normaalweg 'n kla-kous nie, maar ek (kom) regtig nie by alles uit nie!

[Translation]:
sanet102002 (10:00:20 PM): Hi Linda
linda_van_ryneveld_sa (10:22:39 PM): Hello Sanet!
sanet102002 (10:36:40 PM): Hi Linda, I am on-line with Camilla as well- we think we are clueless
linda_van_ryneveld_sa (10:24:48 PM): I have just spoken to Pedro, it sounded to me like that as well
sanet102002 (10:38:27 PM): It is basically about what 'learning' on the web entails – what we must learn for the test?
linda_van_ryneveld_sa (10:26:48 PM): The test is part of the assignments for Week 6.
linda_van_ryneveld_sa (10:27:02 PM): It will cover all the aspects that we have covered in the module
linda_van_ryneveld_sa (10:27:24 PM): Yes, also the articles you had to read, and the concept document that you have to compile
sanet102002 (10:39:46 PM): cicilvr: Internet- application of lesson, research for task, drill, simulation tutorial, game, communication tool, creative tool
camilla : Production tool for learners.
camilla: Teachers: planning, support and training, recources, administration, report writing
linda_van_ryneveld_sa (10:28:31 PM): The concept map must provide a holistic overview of the field of e-learning
linda_van_ryneveld_sa (10:29:27 PM): The idea is not to only write down key concepts, but to compile complete notes, based on your own experiences and of existing literature (which you have to search for on the Web), of all the various aspects covered.
linda_van_ryneveld_sa (10:30:04 PM): The tribe must reach consensus on all the important aspects.
linda_van_ryneveld_sa (10:30:36 PM): I think, for example, of things such as Learner Characteristics and the Role of the online facilitator
sanet102002 (10:44:27 PM): Linda, I now have a better idea, but with the new tribe, the articles we had to search for, the updating of our own web site, is it not a bit too much for one week? Normally I am not a complainer, but I really do not get to everything!

The third level of Krathwohl's Taxonomy of affective development is called **valuing**.

5.6.3 Valuing

The third level entails the provision of evidence from the student that s/he awards value to her/his learning and learning opportunities that are created. This level refers to the student expressing a value orientation. It includes accepting a value and committing to it. For instance, a person who is committed to adding value to the skills and knowledge of previously disadvantaged students may be involved in a computer

literacy programme aimed at them. Table 5.9 serves as explanation of what the third level of Krathwohl's Taxonomy entails.

Table 5.9: Third level of Krathwohl's Taxonomy for the Affective Domain [Adapted from Van der Horst and McDonald (2001:39) and Huitt (2001)]

Level 3	Action / Verbs
Valuing	Believes in, has faith in, justifies, proposes, completes, describes, joins, shares, works, forms, initiates, etc.

The right-hand column of Table 5.9 contains verbs that can be utilised to assess whether the student has reached this level. The quotes provided below show the values expressed by the participants during learning opportunities created for them in the *CyberSurfiver* module.

In e-mail to her peers, Joanita **proposed** a solution to a problem she encountered. She specifically indicated that she required a response from Bob. She wrote:

Quote EM 5.27:

I am out there, but I guess you will need someone like Bob!
I am not sure that we will be able to transfer our freebie to Hagar and I am looking into 1. rebuilding the site or 2. trying to find a way to build a link between the Hagar site and my site. My common sense tells me (not sure if I can always trust that) that one should be able to open the Hagar page and then link to the present site.
Bob, is possible or I am I [sic] dreaming of something impossible.
Joanita

Bob's reply to Joanita contains a **description** of what Joanita should do to solve the problem. In this way, he also **shared** his knowledge. He wrote:

Quote EM 5.28:

You can just ftp your existing site, but see Hannes' earlier note about changing links. In my view, here is the emergency solution. Cut and paste your existing site into a word document. Save the word document as HTML (Word does hyperlinks etc). FTP this to HAGAR using Internet Explorer version 6 or a program like Cute FTP.
Bob

Bob also **shared** information with Mindy and Camilla by **describing,** in an e-mail message, how they should complete a FTP. He wrote:

Quote EM 5.29:

Hi Mindy and Camilla,
I don't use windows at all, but it should work as follows:

1. Open Internet Explorer (I think it has to be version 6 or above) in the address line type ftp://hagar.up.ac.za/students.
2. When the site opens, go to the 2002 directory and then to your own directory.
3. Use windows explorer to open the directory with the files you want to FTP. Select all the files and then select COPY.
4. Go to the Internet Explorer window and select paste.
Note: You should put your files in the ORO directory and your index file should be called index.htm. See my notes about re creating your site.
Good Luck,
Bob

In the following e-mail message sent by Rachel to Gérard, she indicated her **belief** in the correctness and applicability of a Web site she designed. She wrote:

Quote EM 5.30:

Hi,
As you can see i [sic] am online and working. I made two web site [sic] after having trouble with 'tripod'. The one i [sic] prefer is this:
http://virtual-eves.tripod.com/(particpant's name and surname)personalsite/ and i [sic] would like you to put this one on our virtual-eves web tribe …
Rachel

Joanita **initiated** taking responsibility for a tribal assignment. Read Quote EM 5.10 in this regard.

In the following statement, one participant **formed an opinion** with regard to not reading all e-mail messages sent during the module. She said:

Quote FG 5.104:

'And then I think sometimes you missed important messages because you don't read all of them.'

Level four of Krathwohl's Taxonomy is called **organising**.

5.6.4 Organising

Organising refers to the development of a value system. For instance, a person may develop a value system relating to personal relations with members of another cultural group by voluntary being exposed to them (level 1), by responding to/interacting with them (level 2), by attaching a value to the interaction (level 3) and, finally, valuing the interaction itself (level 4). Table 5.10 explains the fourth level of Krathwohl's Taxonomy.

Table 5.10: Fourth level of Krathwohl's Taxonomy for the Affective Domain [Adapted from Van der Horst and McDonald (2001:39) and Huitt (2001)]

Level 4	Action / Verbs
Organising	Adheres, combines, defines, defends, classifies, relates, alters, arranges, forms judgements, identifies, orders, considers alternatives, etc.

The right-hand column of Table 5.10 contains verbs that can be utilised to assess whether students have reached this level. The quotes provided below serve as evidence that the participants in this study organised values that were formed during the learning opportunity created for them in the *CyberSurfiver* module.

The following e-mail message serves as evidence that Bob **defended** his opinion with regard to a tribal assignment. He wrote:

Quote EM 5.31:

Hi Surfvivors,
It seems from evaluations mistakenly posted to elearn2002, that people did not like group 2's site at all. We received lower evaluations than groups with little or no content on their sites. If you take note, there were 3 parts to our tribal assignment posted on the site. To read these, you have to click on 'read more', for each article.
I'm not sure why the evaluations were so low, but I am open to constructive criticism. Our group did, other than some may think spend many hours getting this up and running. Please have a look at our site again and consider your evaluations carefully. Please let us know why you consider our site so pathetic.
Thanks,
Bob

The following quote serves as evidence that a participant was, after completion of the module, able to **identify** shortcomings in her ability to solve problems. She said:

Quote FG 5.105:

'Wat vir my ook sleg was, is dat baie van die goed wat ek eventually reggekry het, met probeer en weer probeer en weer probeer, en uiteindelik kry jy dit reg, sal ek nou nie weer kan doen nie, want ek weet nie hoe't ek daar uitgekom nie. Ek het ure daaraan spandeer, dit uiteindelik genadiglik reggekry – niemand weet hoe nie, en ek sal dit nie weer kan regkry nie. Dis hoekom, daardie leer wat veronderstel was om plaas te vind, het nie plaasgevind nie.'

[Translation]:
'The bad thing for me is, that many of the things that I eventually accomplished, through trying and more trying and more trying, and eventually you do get it right, I will not be able to do again, because I do not know how I got there. I spent hours and hours on it, and eventually, by mercy, got it right – nobody knows how, and I will not get it right again. That is why, the learning that was supposed to take place, did not occur.'

By **defending** his decision for starting his own tribe, a participant indicated his development to level four of Krathwohl's affective taxonomy. He said:

Quote FG 5.106:

'Ek dink ek en Anita is saam op 'n stadium afgestem, en ons het besluit – dit was nou heelwat later – het ons besluit, ek het besluit ek gaan nie deel van daai groep word nie, en ek het vir Linda ge-'e-mail' en gesê dit is my redes, en ek gaan, ons gaan ons eie groep vorm. So, daai groep was gestig, toe vorm ons 'n aparte groep, want ons wou nie deel van daai groep word nie. Ons wou nog steeds geleer het, en interaktief deelgeneem het.'

[Translation]:
'I think that at one stage Anita and I were voted off together, and we decided – this was now sometime later – we decided, I decided that I was not going to become part of that group, and I e-mailed Linda and told her my reasons, and that I was, we were going to form our own group. So, that group was formed, we then formed a separate group, because we did not want to become part of that group. We still wanted to learn, and wanted to participate interactively.'

The participant above **defended** his viewpoint on breaking the rules of the game as follows:

Quote FG 5.107:

'Ek het vir haar (dosent) gesê ek gaan dit breek, en ek het nie geworry daaroor nie. Ek het vir haar gesê, ongeag van wat jy sê, dis wat ek gaan doen, want ek wil my waarde vir my geld kry uit hierdie survivor-storie uit, en ek gaan nie in 'n groep sit waar ek die enigste een is wat alles moet doen, en al die ander mense dra in die proses nie, want dit gaan ook oor punte aan die einde. Dit was aan die einde van die dag 'n spel gewees, en ek dink baie van die reëls was gemaak om te breek.'

[Translation]:
'I told her (lecturer) I was going to break it, and I was not worried about it. I told her, regardless of what you say, this is what I am going to do, because I want to get my money's worth from this survivor story, and I'm not going to sit in a group where I'm the only one that had to do everything, and in the process carry all the people, because in the end it is about marks. That was at the end of the day a game, and I think many of the rules were made to be broken.'

A participant who indicated that he would have **considered an alternative** route of action if he had certain information, said:

Quote FG 5.108:

'I would have done that. If I would have [sic] known it was so tough, I would have done that HTML course during the holiday.'

One participant indicated that he thought of an **alternative** manner to start a similar online module in future and that he would suggest it to the lecturer. He said:

Quote FG 5.109:

*'It was wonderful. What I would suggest to her is to introduce **Yahoo! Messenger** first thing next time.'*

The last and highest level of Krathwohl's Taxonomy is called **characterisation** or **internalisation**.

5.6.5 Characterisation / Internalisation

At level five, a person's behaviour consistently reflects the values that s/he has organised into some kind of system. For example, students at this level will set principles and demonstrate them in their behaviour. Table 5.11 explains what the fifth level of Krathwohl's Taxonomy entails.

Table 5.11: Fifth level of Krathwohl's Taxonomy for the Affective Domain [Adapted from Van der Horst and McDonald (2001:39) and Huitt (2001)]

Level 5	Action / Verbs
Characterisation / Internalisation	Acts, solves, verifies, influences, listens, proposes, qualifies, questions, displays, judges, illustrates mature attitude, discriminates, performs, etc.

The right-hand column of Table 5.11 provides verbs that can be utilised to assess whether the student has reached level 5. The quotes in this part of Chapter 5 are provided as evidence that the participants in this study had indicated their receptiveness for the learning opportunity created for them in the *CyberSurfiver* module.

The fact that some participants participated freely in the focus group interviews is an indication of their development up to a level where they were willing and able to judge and make suggestions based on their own experiences.

Camilla illustrated a **mature attitude** in an e-mail message she sent to the lecturer with regard to how much she struggled with creating her own Web site, and the amount that she learned in the process. She wrote:

> **Quote EM 5.32:**
>
> *My personal website is now more or less working! What a struggle. I am just happy to say that I learnt the most I could out of it, as I received no help from any outside party. Thanks Linda for your input. … .*
> *Camilla*

Two participants, who indicated that quitting the module was not an option, because they knew that they had to acquire the skills and knowledge, also exhibited a **mature attitude** during the focus group interview. They said:

> **Quote FG 5.110:**
>
> *'Hierdie is 'n module wat jy moet afhandel, wat jy moet weet…'*
>
> [Translation]:
> *'This is a module that you have to complete, that you have to know …'*

> **Quote FG 5.111:**
>
> *'Ja [yes], I knew I wanted to have good marks for this module as well, so even if I had to stay up until three or four o'clock or whatever, until I understood the task or whatever, I just had to do it.'*

Participants exhibited **mature behaviour** by taking responsibility for their performances and by seeking solutions to problems. The following quote is relevant:

> **Quote FG 5.112:**
>
> *'I didn't go to the course. I found that **Netscape** has a composer that works like **Microsoft** word. And you work in **Netscape Composer**, and you save it on your HTML file, and you put it on your **Composer**, and it looks wonderful.'*

A participant made a **judgement** of the module by indicating that a short introduction to the module would have had a positive influence on participants' involvement in it. She said:

> **Quote FG 5.113:**
>
> *'Ek dink as ons ('n) kort inleiding gehad het oor waaroor die kursus gaan, wat van jou verwag gaan word, hoeveel ure jy per dag ongeveer gaan spandeer, hoeveel dit jou in rand en sent gaan kos, sou daar baie ouens nie daai aand in daai ry gestaan het en ingedeel gewees het in 'n groep nie, want daar was baie hang-onners gewees.'*
>
> [Translation]:
> *'I think if we had a short introduction to what the course entailed, what was expected of you, approximately how many hours per day you would need, how much in rand and cent it would cost you, not many people would have stood in that row that evening, and being devided into a group, because there were many who hung on.'*

Another participant **judged** the module. He said:

> **Quote FG 5.114:**
>
> *'For a game like this, there has to be some kind of basic entry level.'*

The following judgement was made with regard to the impact of online learning on a person's learning style:

Quote FG 5.115:

'I think what online situations do to one, is it really impact on your style of learning.'

The following **judgement** was made on the interpretation of e-mail messages:

Quote FG 5.116:

'The thing is here, it's basically misinterpreted, like I can write 'really' in big letters and in brackets, and someone will understand it, and then it will be offence like. But if I do it with my body language, then it won't be offending.'

5.6.6 Conclusion on Krathwohl

The participants' attainment of at least the first three levels of Krathwohl's Taxonomy was easy to identify by reading through the e-mail messages that were sent by them during the six weeks that the *CyberSurfiver* module was active. The further and higher affective development of participants, namely to levels four and five of the taxonomy, is more evident in the transcripts of the focus group interviews. It is possible that the six weeks in which the module was presented was too brief a period for the participants to move through all five levels of the affective taxonomy.

The focus group interviews were held six months after the conlusion of the *CyberSurfiver* module. The participants were then still involved with the master's degree programme. This meant that they had more exposure to computer-based information and probably became more skilled. An added factor to their affective development may have been that they had time to reflect on their experiences and that they were not so involved and caught up in their roller coaster experiences. Reflection may have provided them with a more objective opinion about their experiences and how they felt about them. This added time and more exposure to the online environment could have resulted in the participants' reaching the top level of the taxonomy.

5.7 Literature control

The discussion on the Initial Phase pertains to the quotes in this chapter as follows:

- Quotes FG 5.1 to FG 5.10 and Quotes EM 5.1 to EM 5.3 pertain to the chaos and angst that participants experienced;

- Quotes FG 5.11 to FG 5.29 and Quote EM 5.4 pertain to the participants' recognition of their own inabilities; and
- Quotes FG 5.30 to FG 5.33 pertain to the participants' recognition of the learning process being difficult.

5.7.1 Initial phase: Responding to requirements

According to Beaudoin (2002:151), a factor cited most often is '*that online learning is a new experience and students need time to become acclimated to using it*'. Cousin and Davidson ([Sa]) state that inexperience is the main contributor for feelings of anxiety. Poel, Op Den Akker, Nijholt and Van Kesteren (2002) state that changes to the emotional state are event driven. In the study done by Cousin and Davidson ([Sa]), they found that stress-related emotions experienced during online learning are commonly associated with nervousness experienced during the writing of examinations. They also note that these stressful emotions experienced by their participants were caused by the additional strains of having jobs, families and studies with which to contend. These participants also had to negotiate to be identified as higher education students. Cousin and Davidson's findings can be compared to the feelings of chaos and anxiety experienced by the participants of this study, because they were in similar positions, and experienced similar feelings. Kort and Reilly (2002:59) quote Goleman in saying:

> *'The extent to which emotional upsets can interfere with mental life is no news to teachers. Students who are anxious, angry, or depressed don't learn; people who are caught in these states do not take information efficiently or deal with it well.'*

According to Kort, Reilly and Picard (2001), lecturers who work in science, math, engineering, and technology professions know that failure is part of learning with the consequent experiences of a number of associated affective responses. Regardless of knowing that, lecturers seldom acknowledge these 'natural concomitants' of the learning process. Consequently, students tend to see themselves as 'not being good' at something, or as simply 'stupid'. Lecturers fail to tell students that the feelings they experience are part of normal learning. Smith (2002) is of the opinion that adults will experience an opportunity for growth and development if they are allowed to explore their feelings as part of their learning experiences.

5.7.2 Second phase: Valuing, commitment and organising

The discussion on the Second Phase pertains to the quotes in this Chapter as follows:

- Quotes FG 5.34 to FG 5.56 pertain to the dynamics as experienced by the participants of working in a team;
- Quotes FG 5.57 to FG 5.68, Quote YM 5.1 and Quotes EM 5.5 to EM 5.8 pertain to the lifestyle changes that the participants made; and
- Quote FG 5.69 to FG 5.75, Quotes EM 5.9 to EM 5.11 and Quote YM 5.2 pertain to issues on self-management and self-talk that the participants employed.

According to Cousin and Davidson ([Sa]), students prefer to work in groups to keep levels of anxiety low. Considering the fact that the participants of this study knew each other from their face-to-face encounters in modules they had done before, working in groups should have contributed to lower anxiety levels. The *CyberSurfivers* were not supposed to have face-to-face interactions, but they did. This may have kept their anxiety levels lower than they would have been if they did not know each other at all.

Knowing each other and even just knowing what a person looks like (by looking at a photograph on the Web) still do not assure proper group interaction. According to Meyers and Meyers (1973), self-esteem plays a large role in participation. A person with a good self–esteem shows characteristics such as being willing to take risks in offering ideas, accepting criticism, assuming responsibility, and graciously accepting credit. People with low self-esteem tend to be hypercritical of themselves and others, are defensive about their worth and efforts, are pessimistic about what the group can achieve, and are in constant need of assurance of their merit, despite their inability to accept compliments (Meyers and Meyers 1973).

The voting system of the *CyberSurfiver* module where *weak* tribe members and not *strong* tribe members were voted out created unique dynamics of working in a group. All tribes started out with six members each, but as the eviction process progressed, only two members of the original tribes were left and the tribe that was supposed to be formed by evictees by that time was non-functioning. Some of these members formed their own tribe. Van Ryneveld (2004:326), who was the lecturer for the *CyberSurfiver* module, explains that this meant that groups could not function optimally and therefore she had to shuffle the groups again in the fourth week of the game. This unfortunately led to new anxieties experienced by some participants with

regard to functioning in a new group. These anxieties had to do with human interaction and not human-computer interaction.

Participants rather interacted with participants outside of their newly formed tribes, who were as competent as they were, or online at the same time as they were. In the end it seems that group interaction in the tribes was not seen as more important than finding support from 'strong' participants who would assist them in obtaining their goals. Thus, they chose to interact with peers who would assist them in their 'survival'.

Another aspect of ensuring survival meant that participants had to change their lifestyles. Lifestyle changes for the *CyberSurfivers* meant that participants faced the physical challenges of being online and in front of a computer for lengthy periods, as well as managing their time so that they could spend these long hours online and in front of a computer. It very interesting to find that Burge, in a study conducted in 1994, quoted a participant who used nearly the exact same words as the participant quoted in FG 5.63, and FG 5.65. Burge's participant said:

> *'A huge river flowing ... it' s like riding the rapids, you've got to get in a boat and you've gotta keep going - you have to keep that boat moving along the river of information, because if you ever stop you're going to go down'* (Burge 1994).

Further evidence of spending extended time in front of a computer in an effort to complete an assignment comes from a study done by Hara and Kling ([Sa]) who mention face-to-face interaction with a student found working in a computer lab of a university very late one night:

> *'When I left the computer lab, John returned to work on his assignment and declared, "I will finish this work anyway. It'll probably take an hour and it may not be a good work. ... But just do it." It was almost 1:20 am. He said in a tired voice, "You have a good night, and I'll have a good night"* (Hara and Kling [Sa]).'

It is evident from some of the quotes in this regard that the participants of this study experienced extreme fatigue and physical strain. Students today are required to spend more time in front of a computer as part of their course requirements. This does affect the physical, psychological, and social well-being of online students

(MacKintosh 2000). There are a number of physical problems identified that are related to the use of computers, such as Repetitive Strain Injury (RSI) which is a general term for a number of injuries involving damage to muscles, tendons and nerves of the hands, wrists, elbows, arms, shoulders, back, or neck. According to MacKintosh (2000) these symptoms are '*…associated with the repetition of small, rapid movements, working in a static and/or awkward posture for long periods of time, insufficient recovery time (too few rest breaks), improper workstation setup, and poor typing technique'*.

Other studies indicate that physical strain such as discomfort in the eyes, head, neck, arms and back are often reported (Harris, Straker, Pollock & Trinidad 2000; Trimmel & Bachmann 2004:151-2). Trimmel and Bachmann (2004:151) investigated a number of aspects when laptops were introduced in classrooms. One of these was the aspect of physical strain. Comparing results of tests and questionnaires of participants from a traditional contact class and that of laptop students, they found that laptop students '*…experienced greater physical discomfort, particularly in their arms'*. Trimmel and Bachman are thus of the opinion that the use of computers in teaching may enhance health risks.

The abovementioned physical issues have to do with affective experiences in the sense that humans are holistic (physical, psychological, spiritual and socio-cultural) beings, and if one part of the holistic system is upset by disease, trauma or experience, they tend to function less effectively. This is evident in the quotes of the *CyberSurfiver* participants. They were tired, physically and mentally, due to many hours of continued physical and mental exertion in front of their computers, which may have had an effect on the feelings they experienced during the module. They indicated that they experienced physical symptoms of fatigue. From time to time the participants referred to themselves as feeling 'stupid' or 'dense' (Quotes FG 5.21, FG 5.97 and EM 5.14). This may also serve as indications of mental fatigue.

Despite the fatigue, the participants of this study exhibited self-management behaviour that assisted them in obtaining their goals. This behaviour was probably supported by their motivation (which is addressed in Chapter 4) to complete the module. One can relate the self-management and self-talk that they exhibited to self-efficacy. Self-efficacy is '*the belief in one's capabilities to organize the sources of action required to manage prospective situations'* (Bandura 1986 in Bandura 1994). When students perceive their self-efficacy as strong, they will set challenges for themselves and will be firmer in their commitment to achieving them. By setting these

goals students plan courses of action that will assist in their attainment. The level of perceived self-efficacy regulates the level of exercises to control stressors, which play a central role in anxiety experience (Bandura 1994). The *CyberSurfiver* participants managed the attainment of goals by also managing their families and creating time tables which would assist them in reaching their goals. By so doing, they exhibited responsible behavioural patterns.

5.7.3 Third phase: Internalisation

The discussion on the Third Phase pertains to the quotes in this chapter as follows:

- Quotes FG 5.76 to FG 5.79, Quote EM 5.12 and Quote YM 5.3 pertain to the sense of achievement experienced by the participants;
- Quotes FG 5.80 to FG 5.87 and Quote EM 5.13 pertain to the sense of cohesion experienced by the participants;
- Quotes FG 5.88 to FG 5.95 pertain to reasons for participants to stay on the course; and
- Quotes FG 5.96 to FG 5.103, and Quotes EM 5.14 and EM 5.15 pertain to issues of giving and receiving support during the module.

Students become motivated when they take responsibility for tasks. This happens when they experience a sense of achievement as they become more skilled and able to complete tasks. By allowing students to complete tasks on their own, with the lecturer acting as an available helper, the completed task may not have the lecturer's expert touch, but it will undoubtedly enhance the feelings of students that the final products are their own work.

It is crucial to provide students with a sense of success and achievement in the online learning process. (Khoo [Sa]). The sense of achievement experienced by students is not obtained by developing the ability to understand subject content but in finding strategies that will improve their marks (Martin, Ramsden an& d Bowden 1989).

According to Martin *et al.* (1989), those students who appear to be best adapted in terms of grades and in terms of commitment to, and satisfaction with, their studies '*are the ones who see themselves as being largely responsible for their own learning*'.

Students who provided feedback to Sheard, Lowe, Nicholson and Ceddia (2003:156-80) indicated that they enjoyed '*doing something practical and making something*

work', and by so doing they experienced a proper sense of achievement. The following quotes are comments made by their participants:

> *'I really liked using the program on the little house to make different things happen'* (Sheard *et al*. 2003).
>
> *'Getting my team together and working, completing the project on time, and having our presentation run very smoothly – and work'* (Sheard *et al*. 2003).
>
> *'My most memorable moment was how our smart-house worked first time, and without any problems'* (Sheard *et al*. 2003).
>
> *'I didn't think I would be able to create something like that which worked! It was so great. Seeing it light up and make the sounds and stuff was really exciting'* (Sheard *et al*. 2003).

It is this same sense of achievement that *CyberSurfiver* participants experienced when they had physical proof of success with regard to their assignments. Quotes FG 5.77, FG 5.78, FG 5.79 and Quote EM 5.12 can be compared to the discussion above.

A feeling of cohesion is of extreme importance in group decision-making, goal attainment, identity, and member satisfaction. The implication of this is that group members will experience an *esprit de corps*, which can also be called a "we-feeling". Dorwin Cartwright defines it as '*the degree to which members of the group desire to remain in the group*' (Losh 2003). It is the affective perspective (feeling) that seems to be of importance in the experience of cohesion. Cohesion can also be described as the positive affect among group members (Losh 2003).

According to Wheelan, Tilin and Sanford (1996), research (that of Tuckman 1965; Tuckman and Jensen 1977; Wheelan 1990; Wheelan 1994) has shown that groups go through a number of phases. The first phase is a period of dependency and inclusion. During this phase, group members are dependent and need leadership. During the second phase, members start to challenge the leader's authority and openly disagree with one another. If disagreements are overcome the group will enter a phase of trust and structure. It is during this phase that group cohesion and cooperation develop. Members will then start to make plans to achieve their goals (Wheelan *et al*. 1996). It seems that the participants of this study advanced to the phase of cohesion during

this second phase of development. One participant indicated that they started sharing information (Quote FG 5.81) and another that they felt bound together (Quote FG 5.87).

Fernandez (1997) is of the opinion that cohesion is often linked to group member satisfaction. She states that people may feel part of the group if they make contributions. Slavin (1997:69-78) mentions a study she did in 1996 where she found common needs would assist in the development of cohesion. This finding is also applicable to the *CyberSurfiver* participants as they had a common goal, and they developed towards a phase of trust and cooperation. The feeling of trust and cohesion developed further and participants started to see the person behind the computer.

Some participants explained this development by indicating that they found the computer to have human qualities. This kind of behaviour is reiterated by King (2002:161) who states that Reeves and Nass (1996) found that people tend to treat computers and other technologies like real people. This type of perception is anthropomorphic in nature. King (2002:161) found the same kind of behaviour in virtual students. This is also prevalent in quotes (Quotes FG 5.83 and FG 5.84) by *CyberSurfiver* participants who indicated that they experienced the humanness of the computer specifically after the introduction of the *Interwise* session.

Lack of feedback, feelings of isolation, frustrations with the technology, anxiety, and confusion are but some of the factors that may lead to students not completing a distance education course (Hara and Kling 2000; Hill and Raven [Sa]; King 2002:158). Insufficient interactions with peers and lecturers, as well as feelings of not 'fitting in' may also lead to students dropping out (Rovai 2003:5). According to Chyung (2001), other reasons for dropping out may be that some students:

- Do not feel confident enough to obtain their learning goals by means of distance education;
- Have low confidence levels in learning via the Internet without face-to-face human contact;
- Are not competent in using online communication software as an effective learning tool; and
- Experience feelings of being overwhelmed by advanced knowledge and an overload of online information.

However, Galusha (1997) discusses the opinion of Knowles (1980) who believes that students stay on a course because of their needs, as well as situation and personal characteristics, regardless of the distance of an institution. Galusha is also of the opinion that adult distance students are motivated by different 'things' than traditional students.

The ages of the participants were not considered as a variable applicable to this study. In hindsight, and considering the point Galusha (1997) makes with regard to the age of distance education students, it would have been helpful. Galusha states that older students (50 years and older) tend to stay on a course probably due to life experiences that they can tap into with regard to coping and problem solving. What probably increased their motivation to stay was the fact that they all had full-time jobs and probably did the MEd (CAE) course to further their careers. That alone would be indicative of personal commitment (Galusha 1997). Some students made statements to that effect in Quotes FG 5.90, FG 5.91, FG 5.92, FG 5.93 and FG 5.95 where they indicated that they had to complete the module, because quitting was not an option.

The participants who stayed on the *CyberSurfiver* module received a huge amount of support. This support was provided by members of their tribes, as well as from members of other tribes. It seems that most of the support they received was obtained from their peers, as well as friends and family members. This characteristic of support is reiterated by Rovai (2003:7) who notes that older students tend to have different support structures than younger students. Rovai further states that older students draw more support from outside the academic environment because of their limited interaction with other groups in the college community. These 'external' groups usually consist of peers, friends, family, and employers (Rovai 2003:7). This is evident in the quotes of the *CyberSurfiver* participants in this chapter (see Quotes EM 5.14 and EM 5.15, as well as Quote FG 5.96 to FG 5.102).

Hara and Kling (2000) tell about a student who ceased communication with the lecturer after she had only one interaction; an unsatisfying encounter with her lecturer. She dealt with the distress by talking to a classmate in her own mother tongue. The student said:

> '*I am calling a friend every week, just to complain. She is a good listener, whenever I complained, she just listened and I felt better*' (Hara and Kling 2000).

Stacey (1999) notes that supportive online comments, as well as sharing personal anecdotes and information, provide '*a network of social interaction that underlay the mutual respect and trust needed for a successful collaborative group process*'. In her research, she found this type of communication provided students with the opportunity to form friendships and created a sense of belonging that assisted in motivating them to apply themselves to their study when they were finding it hard to cope. Stacey quotes two students with regard to the socio-affective peer-support students received during an online course:

> '*It makes you feel there's someone else there, and you're not sort of sitting all alone out away from contact with other people'* (Stacey 1999).

> '*I think it gives us better contact with our fellow students and it takes away the isolation of distance education. And certainly the group that we had running here in the second semester is a fairly tight knit group now and the interaction with the computer has actually brought us together both from an education point of view and probably socially as well'* (Stacey 1999).

One of the greatest strengths of online education is its ability to facilitate interaction in group activities. The affective benefits of peer interaction, previously possible only in face-to-face situations, are now possible with CMC. The virtual classroom serves as ideal environment for a peer-support environment (Stacey 1999). The *CyberSurfiver* course provided a means of regular electronic group communication in which participants developed a supportive environment.

5.8 Model of a learning cycle, which integrates affect

Having discussed the participants' affective development according to different phases, as well as compared it to Krathwohl's Taxonomy, the affective development of the participant will further be compared to Kort and Reilly's model of a learning cycle that integrates **affect**. This model developed by Kort and Reilly (2002a:60) indicates the integration of affect into the learning cycle. In Figure 5.1 they suggest six possible emotion continuums that may be experienced by students in the course of the learning.

Axis	-1.0		- 0.5	0	+0.5	+1.0
Anxiety-Confidence	Anxiety	Worry	Discomfort	Comfort	Hopefulness	Confidence
Ennui-Fascination	Ennui	Boredom	Indifference	Interest	Curiosity	Fascination
Frustration-Euphoria	Frustration	Puzzlement	Confusion	Insight	Enlightenment	Euphoria
Dispirited-Enthusiasm	Dispirited	Disappointed	Dissatisfied	Satisfied	Thrilled	Enthusiasm
Terror-Excitement	Terror	Dread	Apprehension	Calm	Anticipatory	Excitement
Humiliated-Proud	Humiliated	Embarrassed	Self-conscious	Pleased	Satisfied	Proud

Figure 5.1 Emotion sets possibly relevant to learning (Kort and Reilly 2002a:60; 2002b:8)

In Figures 5.2 and 5.3, Kort and Reilly (2002a; 2002b) show how the emotion continuums (axes) are interwoven with the cognitive dynamics of the learning process. From Figure 5.2 it is clear that the more pleasurable emotions lie to the right of the vertical axis (the learning axis) and the more unpleasant emotions lie to the left of the vertical axis. The vertical axis indicates the upward construction of knowledge, and the misconceptions are discarded downward.

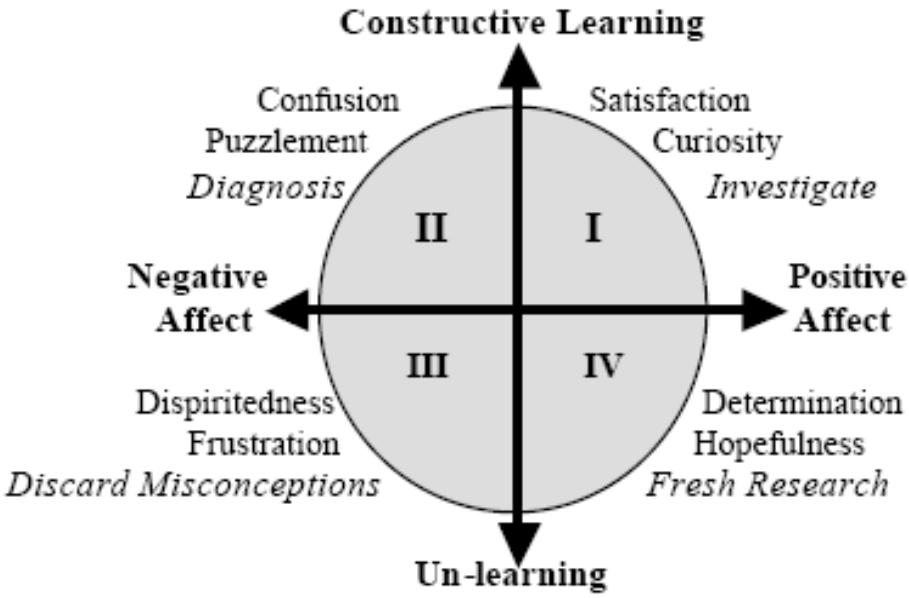


Figure 5.2 Four-Quadrant model, relating phases of learning to emotions (Kort and Reilly 2002a:60, 2002b:8)

As can be seen in Figure 5.2, students would start in Quadrant I, as they may be curious or fascinated about something. They may even be puzzled and become motivated to reduce confusion (Quadrant II). In both instances they will be in the top half of the sphere if their focus is on constructing knowledge. As learning takes place movement will take place, for example, when a student discovers how to solve a problem. If a student fails to solve the problem and recognises that some part needs to be reconsidered, the student may move down into the lower half of the diagram (Quadrant III) and at the same time discard misconceptions and unproductive ideas.

As the student consolidates the knowledge gained and experiences a sense of making progress, advancement to Quadrant IV takes place. When the student experiences new problems that need to be solved and ideas to solve them develop, the student may find himself back in Quadrant I. Kort and Reilly (2002a:60) states that '*a typical learning experience evolves a range of emotions, cycling the student around the four quadrant cognitive-emotive space as they learn*.' This leads to the explanation of Figure 5.3.

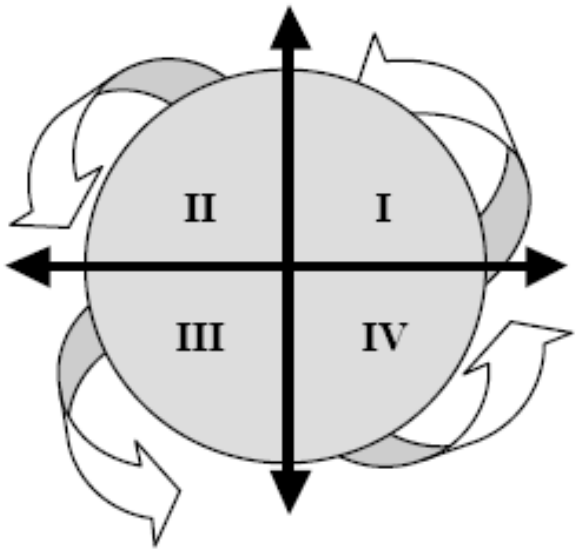


Figure 5.3 Circular and helical flow of emotion in Four Quadrant model (Kort and Reilly 2002a:61, 2002b:10)

A third axis, not visible in the two-dimensional figure, can be imagined as extending out of the plane of the page. This is called the cumulative knowledge axis. This third dimension allows of the creation of a spiral, which will allow the movement between the Quadrants as an orbit. Kort and Reilly (2002a:61) said: '*Emotional mood decays over time either from boredom or disappointment*'. With this in mind, they explained the spiral movement as follows:

- Quadrant I – High anticipation and expectation are experienced as the students build ideas and concepts and try them out.
- Quadrant II – Negative emotions develop, and progress decreases as the construction of ideas wanes.
- Quadrant III – Students discard unworkable ideas and the negative emotions run their course.
- Quadrant IV - Students become hopeful and positive again.

In building a complete and correct mental model associated with learning opportunity, the learner may experience multiple cycles until completion of the learning exercise. The sphere does not close on itself, but gradually spirals around the cumulative axis (Kort and Reilly 2002a:60). When looking at the quotes of the participants, it is quite clear that they experienced some of the emotions identified by Kort and Reilly.

Table 5.12 contains the emotions identified in the Initial Phase of the affective development of the participants. The left-hand column contains ten of the twelve emotions lying on the emotions continuum in Figure 5.1 between –1.0 and –0.5 as identified by Kort and Reilly (2002a:60).

Table 5.12: Emotions experienced by participants during the Initial Phase of affective development according to Kort and Reilly's (2002a:60) model

Emotion	Quotes
Anxiety	FG 5.1, FG 5.2 and FG 5.3.
Worry	FG 5.4, FG 5.5, FG 5.8, FG 5.13 and FG 5.25.
Puzzlement	FG 5.5, FG 5.4 and FG 5.33.
Frustration	FG 5.6, FG 5.19, FG 5.23 and EM 5.1.
Dispirited	EM 5.3, FG 5.15, FG 5.17 and EM 5.4.
Disappointed	FG 5.29.
Terror	FG 5.14 and FG 5.18.
Dread	FG 5.30 and FG 5.31.
Embarrassment	FG 5.11 and FG 5.12.
Humiliated	FG 5.20, FG 5.21, FG 5.22, and FG 5.24.

The right-hand column of Table 5.12 contains the numbers of the quotes in this chapter identified as reflecting the emotions lying on the emotions continuum in Figure 5.1 between –1.0 and –0.5. The one emotion experienced to a very limited extent is *disappointment*, which is proved by the presence of one quote only indicating the

experience of such an emotion. It may be assumed that the participants experienced the *CyberSurfiver* module as interesting and stimulating right from the start, as not one quote could be found indicating ennui or boredom.

Table 5.13 contains the emotions identified in the Second Phase of affective development of the participants. The left-hand column contains eleven of the twelve emotions lying on the emotions continuum in Figure 5.1 between –0.5 and +0.5 as identified by Kort and Reilly (2002a:60).

Table 5.13: Emotions experienced by participants during the Second Phase of affective development according to Kort and Reilly's (2002a:60) model

Emotion	Quotes
Discomfort	FG 5.30, FG 5.32, FG 5.33, FG 5.35, FG 5.37, FG 5.48, FG 5.62, FG 5.63, FG 5.64, FG 5.66, FG 5.67, and FG 5.68, as well as EM 5.5, EM 5.6, EM 5.7 and EM 5.9.
Comfort	FG 5.49.
Interest	EM 5.10, EM 5.11 and FG 5.76.
Confusion	FG 5.45, FG 5.51 and EM 5.8.
Insight	FG 5.26, FG 5.27, FG 5.28, FG 5.41, FG 5.42, FG 5.72 and FG 5.73.
Dissatisfied	FG 5.43, FG 5.44, FG 5.56 and FG 5.61.
Satisfied	FG 5.74.
Apprehension	FG 5.40 and FG 5.54.
Calm	FG 5.57, FG 5.58, FG 5.59, FG 5.60 and FG 5.69.
Self-conscious	FG 5.38 and FG 5.39.
Pleased	FG 5.70 and FG 5.73.

The right-hand column of Table 5.13 contains the numbers of the quotes in this chapter identified as reflecting the emotions lying on the emotions continuum in Figure 5.1 between –0.5 and +0.5 indicated by Kort and Reilly (2000a; 2000b). The one emotion not experienced by participants at all is *indifference.* This indicates that the participants were very much concerned with the content and requirements of the module, as well as their performance in the game.

Table 5.14 contains the emotions identified in the Third Phase of affective development of the participants. The left-hand column contains all twelve emotions lying on the emotions continuum in Figure 5.1 between +0.5 and +1.0 as identified by Kort and Reilly (2002a:60).

Table 5.14: Emotions experienced by participants during the Third Phase of affective development according to Kort and Reilly's (2002a:60) model

Emotion	Quotes
Hopefulness	FG 5.87 and FG 5.91.
Confidence	FG 5.76, FG 5.83, FG 5.90 and FG 5.92.
Curiosity	EM 5.13 and EM 5.14.
Fascination	FG 5.88.
Enlightenment	FG 5.84, FG 5.85, FG 5.96, FG 5.97 and FG 5.99.
Euphoria	EM 5.12.
Thrilled	FG 5.82.
Enthusiasm	FG 5.81, FG 5.93 and FG 5.102.
Anticipatory	FG 5.98 and FG 5.101.
Excitement	FG 5.78 and FG 5.94.
Satisfied	FG 5.86, FG 5.89 and FG 5.100.
Proud	FG 5.77, FG 5.89, YM 5.3 and EM 5.15.

The right-hand column of Table 5.14 contains the numbers of the quotes in this chapter identified as reflecting the emotions lying on the emotions continuum in Figure 5.1 between +0.5 and +1.0. The participants had come full circle and developed to such an extent that they experienced nearly all the emotions on all six continuums of Kort and Reilly's model.

Although the emotions on the continuums of Figure 5.1 are paired, Kort and Reilly (2002a; 2002b) do not describe the emotions as having distinct points of moving from level to level. As with the comparison with Krathwohl's Taxonomy under Section 5.6 in this chapter, the affective development of the participants of this study compared well with Kort and Reilly's model.

5.9 Summary

In this chapter, the second category, namely *Process of Affective Development* identified during the data analysis and coding process of this study was discussed. The discussions started out with explanations of the concepts identified in the three different clusters of Category 2. Definitions, as well as the inclusion and exclusion criteria for the clusters, Initial Phase, Second Phase and Third Phase, were provided. The discussions included quotations obtained from the transcripts of focus group interviews and the printouts of synchronous conversations on *Yahoo! Messenger*, as

well as e-mail text messages that students sent to each other and the lecturer during the time that the module was active.

Literature applicable to the clusters of Category 2 was discussed in an effort to compare the experiences of the *CyberSurfiver* participants with findings of similar studies done previously. The quotes of the participants were compared according to the five levels of Krathwohl's Taxonomy. It was concluded that the participants' affective development could be compared to the levels of Krathwohl's Taxonomy. The participants' affective development was further assessed by means of a learning cycle model developed by Kort and Reilly (2002a:60-61). The comparison drawn between Kort and Reilly's model proved to have the same result as that of the comparison to Krathwohl's Taxonomy.

The following chapter, Chapter 6, will include the discussion of the third Category, called *Inhibiting Factors*, and the relevant literature control will be done.

Table of content

6 Inhibiting factors

6.1 Introduction

In Chapter 5, the second category of coding, namely the *Process of Affective Development* was discussed. In Chapter 6, the third category, *Inhibiting Factors*, will be discussed and the literature control for this category conducted. Findings include quotes from the transcripts of the focus group interviews, e-mail text messages that the students sent to each other and their lecturer during the time that the module was active, as well as some of the synchronous conversations on *Yahoo! Messenger*.

The inhibiting factors discussed in this chapter may not specifically pertain to feelings or experiences of an affective nature, but these factors identified by the participants undoubtedly affected their emotions/feelings/experiences with regard to the module. Some of these factors identified by the participants were issues of concern with reference to not only the *CyberSurfiver* module, but also the MEd(CAE) degree as a whole.

Although the third category is called Inhibiting Factors, it must be emphasised that this study does not focus on such factors. This category rather addresses the intensity of the volition of the participants who stayed and completed the module regardless of experiencing many inhibitors.

6.2 Inhibiting factors

During the coding process, *Inhibiting Factors* was the third category of data that was created from the transcribed focus group interviews. To understand what is meant by the concept inhibit/-ed/-ng/-ion/-or, definitions are provided in Table 6.1.

Table 6.1 Definitions of the concepts *inhibit[20]**

Source	*Inhibit**
Collier's Dictionary (1977:529)	**Inhibit:** To hold back; check; restrain.
Yahoo! education (2005)	**Inhibit:** To hold back; restrain.
South African Concise Oxford Dictionary (2002: 593)	**Inhibited, inhibiting: 1** Hinder, restrain, or prevent (an action or process). **2** Make (someone) unable to act in a relaxed and naural way
Stedman's Pocket Medical Dictionary (1987:377)	**Inhibition: 1** Depression or arrest of a function. **2** In psychoanalysis, the restraining of instinctual or unconscious drives or tendencies, especially if they conflict with one's conscience or societal demands.
Stedman's Pocket Medical Dictionary (1987:377)	**Inhibitor:** An agent that restrains or tetards physiologic, chemical, or enzymatic action.

Some of the definitions above provided by the above sources contain the word **restrain.** To further make the explanation of the category *Inhibiting Factors* understandable, the definition of *restrain* is considered. To understand what is meant by the concept *restrain*, definitions are provided in Table 6.2.

Table 6.2 Definitions of the concept *restrain*

Source	*Restrain*
South African Concise Oxford Dictionary (2002: 997)	Prevent from doing something – deprive of freedom of movement or personal liberty.
Collier's Dictionary (1977:851)	To prevent from acting; hold back.
Yahoo! education (2005)	To hold back or keep in check; control.

[20] The asterisk (*) after the word allows for its declension, e.g. inhibited, inhibiting, inhibition, inhibitor.

The concept *factor* for this chapter is defined as explained in Chapter 4 under Section 4.2. Derived from the above definitions, Inhibiting Factors, for the purpose of this study, imply the circumstances or elements that contributed to restraining or holding the participants back from completing the *CyberSurfiver* module. Criteria, and inclusion or exclusion criteria denoting Inhibiting Factors are found in the second column of Table 6.3.

Table 6.3 Denotations of Inhibiting Factors

	Inhibiting Factors
Criteria	When indicated that their knowledge, skills and access to technology inhibited their actions, interactions and performance.
Inclusion in cluster	⊛ If participants indicated that the requirements of the module inhibited their actions, interactions and performance. ⊛ If participants indicated that technology inhibited their actions, interactions and performance.
Exclusion from cluster	When participants indicated that they coped with the challenges of the online module or did not experience any problems with regard to requirements of the module.

Factors that inhibited the participants during the module include negative experiences with regard to voting, insufficient information, lack of computer skills, groups (tribes) and interactive issues, language problems, time and work overload, and financial demands. These issues are discussed below.

6.2.1 Negative experiences with regard to voting

The *CyberSurfiver* module required of the participants to, once a week, vote off the person whom they thought was the 'weakest' or who contributed the least to the tribe's group assignment. According to the course coordinator, the voting off rule was specifically created to limit the possibility of group members taking a 'free ride'. To stay on the module the *CyberSurfivers* had to actively participate and make meaningful contributions to collaborative assignments. This rule seems to have assured that the 'free-riders' indeed discontinued the course after the first two weeks. This requirement of the module created tension for some of the participants. The statements from various participants, which are presented below, reflect the tensions created by the voting aspect of the module.

The first statement, referring to e-mail, shows that the voting aspect of the module had a negative effect on the participants. From this quote, it is also evident that the tension was not openly expressed but that it was reflected in undertones. The participant said:

Quote FG 6.1:

'Die afstem, dink ek, het 'n baie negatiewe effek gehad. Jy kon dit agterkom aan die – jy kon tussen die lyne lees. Die mense voel nie lekker nie.'

[Translation]
I think the voting off had a very negative effect. You could sense it – you could read it between the lines. The people do not feel good.

This opinion was confirmed by another participant:

Quote FG 6.2:

'Dis iets wat jy tussen die – dit was nie in die woorde as sulks nie. Ek weet nie, dit was 'n gevoel net wat jy gekry het in die boodskappe, dat die mense is bitter ongelukkig.'

[Translation]
'It was something between the (lines) you could – it was not the words as such. I don't know, it was a feeling you got in the messages, that the people are extremely unhappy.'

Another participant, who was not voted out, had the opinion that it would not have been pleasant to be voted off. What he said can be read as Quote FG 4.139 in Chapter 4.

Hendrik indicated that he was voted off, but did not want to join the tribe consisting of evictees. This could have been due to the fact that most of the evictees were voted off due to their inactivity and/or lesser skills and knowledge. Hendrik, on the other hand, had sufficient skills and knowledge that would allow him to be an active participant in the tribe compiled of evictees. His reluctance to be in the 'evictee' tribe may have been due to his reluctance to become the only or one of the few active members of the new tribe. He said:

Quote FG 6.3:

'Ek is later afgestem. Ek dink ek en Erika is saam op 'n stadium afgestem, en ons het besluit – dit was nou heelwat later – het ons besluit, ek het besluit ek gaan nie deel van daai groep word nie, …'

[Translation]
'I was voted off later. I think at one stage Erika and I were voted off together, and we decided – that was now much later – we decided, I decided I was not going to become part of that group, …'

One participant, who voted herself off, noted that nobody else in the tribe had voted. This was a clear indication that the voting system did probably not realise as intended by the lecturer. The participant said:

> **Quote FG 6.4:**
> *'Ek het gedink in die 'tribe' waarin ek was, het ek myself uitgestem. En toe't ek gaan kyk wie het gestem, en toe sien ek maar niemand het gestem in die laaste…'*
>
> [Translation]
> *'I thought, in the tribe where I was, I voted myself off. And then I checked who did vote, en then I saw that nobody has voted during the last …'*

A participant felt that the relationships that developed between members of a tribe influenced the voting process. Her quote can be read as Quote FG 5.37 in Chapter 5. Difficulty in accepting responsibility for voting is reflected in the following quote of a participant who said:

> **Quote FG 6.5:**
> *'For me, I never even voted once.'*

Being voting off was perceived as a clear indication that the person was not competent and this could have had consequences for feelings of self-efficacy and self-confidence.

Tribe members who were voted off had to form their own tribe. These participants were voted off because of being inactive in their own tribes. This trend continued in the newly-formed tribe consisting of evictees. This also resulted in some tribes not meeting the requirements of the module. The following quotes confirm that members who were perceived as competent were not voted off:

> **Quote FG 6.6:**
> *'Niemand wou my uit*vote *nie, want daar was niemand om uit te* vote *nie. Verstaan jy, dit was, ons was net twee aktiewe lede in daardie span gewees, met ander woorde, elke ronde is van die onaktiewes uitge*vote*, en jy moes aanhou met daardie ongelooflike frustrasies wat …'*
>
> [Translation]
> *'Nobody wanted to vote me off, because there was nobody to vote off. You understand, it was, we were only two active members in that team, and, in other words, during each round some of the inactive members were voted off, and you continued to have these unbelieveable frustration which …'*

The activities of active members may have been related to their computer literacy skills. This is evident in the following quote that links to the previous quote. The participant said:

Quote FG 6.7:

'Ja, hulle wou nie die competent mense afstem nie, want dan gebeur daar niks meer in die span nie.'

[Translation]
'They did not want to vote the competent people off, because then nothing would happen in that team.'

A participant emphasised how demotivating it was to be voted off and having to form part of a tribe without any evident competencies:

Quote FG 6.8:

'Ja, so hulle het in 'n groep gesit waar daar niks gebeur nie. Niemand weet nie. Niemand kan mekaar help nie. So ek dink dit het 'n baie destructive uitwerking gehad op die groeplede. Dit was baie onmotiverend.'

[Translation]
'Yes, so they sat in a group where nothing happened. Nobody knows. They couldn't help each other. So I think it had a very destructive effect on the group members. It was very demotivating.'

It is therefore evident that the voting process was perceived and experienced as a negative event, mainly because the participants did not like it, it did not always work as intended, it influenced the group and intergroup dynamics, some people did not participate in the process, it was perceived as demotivating and it influenced the distribution of competencies in the groups.

The next inhibiting factor that is discussed is the lack of information regarding the importance of sufficient preparation and the correct application of skills.

6.2.2 Insufficient information

In this subsection it is shown that the participants were of the opinion that they did not receive sufficient information with regard to the requirements for the module and that they were ill prepared for what was required of them. This feeling prevailed, regardless of an introductory session of one hour, which was presented before the commencement of the module. The participants indicated that they were unaware that they lacked the technological information and skills required to do the module before they started with it. The participants' experiences of being ill prepared and informed are evident in the quotes presented in this subsection.

The first quote, which was also presented in Chapter 4, relates to not knowing what to expect:

Qoute FG 6.9:
'Because we didn't know what to expect. About not knowing what was going to happen. Never having done this before.'

Another participant confirmed this by indicating that the lecturer did not inform them of what to expect. She said:

Quote FG 6.10:

*'But she (*the lecturer*) didn't really tell us what exactly, we didn't know what to expect, even when we had the encounter with her, we didn't know what to expect when we went online.'*

A third participant attributed the drop-out rate to this lack of information. He said:

Quote FG 6.11:

'Dit was vir my een van die grootste negatiewe goed wat gemaak het dat studente nie kon klaarmaak nie.'

[Translation]
'That was the one of the biggest negative things that caused students not to finish.'

One participant expressed her frustration with regard to the lack of information during the initial period. She also indicated that the introduction of *Yahoo! Messenger*, which allowed communication with all participants, alleviated this problem to a large extent. The quote below reflects her feelings on the lack of information and communication difficulties:

Quote FG 6.12:

'Then I'll say, at times it was quite difficult for me. Well, I'll agree about what he said about the first two, three weeks, because I didn't know what was expected of me: what must I do? In what format must I do it? So the whole communication during the first two, three weeks was a little bit difficult for me, but later on when we had the **Yahoo! groups***, and I could speak to everybody. Is that what she means? Is that what we have to do now? Ja, but…'*

The participants made suggestions with regard to the information needed by future students. These suggestions indicated the information they were not provided with. The following quotes highlight the specific areas in which they felt they needed more knowledge and skills:

Quote FG 6.13:

'So hulle moet sê, om hierdie kursus te doen, moet jy hierdie en hierdie vaardighede hê, en dan kan jy dit doen (die kursus).'

[Translation]
'So they have to indicate that, to do this course, you have to have these and these skills, and then you can do it (the course).'

Quote Fg 6.14:

'Jy moet HTML ken, hoor.'

[Translation]
'Listen, you have to know HTML.'

Quote FG 6.15:

'PowerPoint moet jy kan doen.'
[Translation]
'You have to be able to use PowerPoint.'

Quote FG 6.16:

'PowerPoint, Excel.'

Quote FG 6.17:

'Jy moet Word-*vaardig wees. Jy moet Internetvaardig wees. Jy moet 'n rekenaar hê, 'n ou se eie persoonlike rekenaar, gekoppel aan die Internet.'*

[Translation]
'You have to be competent in using Word. You have to be competent in surfing the Internet. You have to have a computer, your PC, connected to the Internet.'

Quote FG 6.18:

'Where they should say: BEd (Computers).'

The participants also made suggestions with regard to the personal characteristics needed by students to be able to cope with the module:

Quote FG 6.19:

'You must do something that will get you up to that level that you require. But then they shouldn't allow people onto the course if they don't have that. They should have an entry exam.'

Quote FG 6.20:

'…everything, you know, I mean, in terms of changing, in terms of absorbing, …'

Quote FG 6.21:

'Ja, jy moet 'n sekere vlak hê, soos as jy wil universiteit toe gaan, moet jy matriek hê, met Wiskunde en Wetenskap, of wat ookal.'

[Translation]
'You should have reached a specific level, like when you want to go to university, you have to have matric, with Mathematics and Science, or whatever.'

Quote FG 6.22:

'Yeah, but I think, ja [yes], but then there should be some bridging course towards that.'

Quote FG 6.23:

'Ja, daar (vir 'n oorbruggingskursus) is ook sekere voorwaardes.'

[Translation]
'Yes, (for a bridging course) there are also prerequisites.'

The above discussion and quotations indicate that the participants felt that there was a definite gap in their knowledge and skill levels at the onset of the module. This led to frustration and even caused some people to quit the module. Suggestions with regard to specific computer skills needed included HTML, Power Point, Excel and Word. In addition, it was suggested that students should have their own personal computers with access to Internet. It was also suggested that the students themselves should have reached a specific level to gain entry into the module, that an entry examination is set and that a bridging course is provided. Some participants suggested that the name of the module should clearly indicate that it is an educational subject with a strong computer focus. The following subsection addresses specific computer skills required for the module.

6.2.3 Lack of computer skills

The participants indicated that some of their problems were related to a lack of computer hardware as well as a lack of knowledge with regard to how to use computer software. The lack of equipment, such as a home computer, posed a problem to some participants. One participant made a comment about this by saying:

Quote FG 6.24:
'I don't know if the two of you have computers at home, but I know that some of the other … ladies don't have computers at home.'

Anette posted the following message on *Yahoo! Messenger* with regard to computer problems:

Quote EM 6.1:

Hi Linda, … Ek het vandag begin met 'n ander (effe beter) rekenaar en dinge lyk vir my baie vreemd, …
Anette

[Translation]
Hi Linda, … Today I have started with another (slightly better) computer and things look very unfamiliar, …
Anette

Participants acknowledged that they did not have knowledge about the software and that they did not have adequate technical skills. This is evident in the following quotes obtained through the focus group discussions:

Quote FG 6.25:
'Jy weet jy moet sekere goed doen, en jy weet as jy net, net 'n dag ekstra tyd het om daaraan aandag te gee, of êrens 'n dummyboek te gaan opsoek, dan gaan jy dit dalk regkry, maar jy't nie daardie tegniese kennis om dit wat jy moet doen, te doen nie.'

[Translation]
'You know you have to do certain things, and you know if you had just, just one day extra to attend to that, or if you could go consult a dummybook somewhere, then you might get it right, but you do not have that technical knowledge you need to do what you have to do.'

Quote FG 6.25:
'Om byvoorbeeld daardie scrollbar wat ons moes maak – ek kan nie vir jou sê hoeveel ure het ek daaraan spandeer nie. En ek weet dat as jy, as iemand net vooraf vir my gewys het hoe om dit te doen, het ek dit binne minute gesnap en dit gedoen. So daar was tegniese goed van 'n ou gevra om dit te kan doen – ek wil amper vir jou sê software applications wat jy moes hanteer, wat ek geen, geen benul van gehad het nie. Dit was vir my 'n groot frustrasie.'

[Translation]
'For example, to make the scrollbar that we had to – I can't tell you how many hours I spent on that. And I know that if you, if someone could show me beforehand how to do it, I would have grasped it within minutes and have done it. So there were technical things required of one to do it – I almost want to say software applications which you had to manage, of which I had no, no clue. That, to me, was a huge frustration.'

Quote FG 6.27:
'Die tegniese- en my software kennis, was nie genoegsaam gewees om my die vrymoedigheid te gee, en om die ding vir my lekker te maak nie. Ek dink as ek als-en-als so bietjie van geweet het, dan het ek, miskien het dit 'n klompie deure vir my oopgemaak. Wat vir my ook sleg was, is dat baie van die goed wat ek eventually reggekry het, met probeer en weer probeer en weer probeer, en uiteindelik kry jy dit reg, sal ek nou nie weer kan doen nie, want ek weet nie hoe't ek daar uitgekom nie. Ek het ure daaraan spandeer, dit uiteindelik genadiglik reggekry – niemand weet hoe nie, en ek sal dit nie weer kan regkry nie.'

[Translation]
'The technical and my software knowledge was not sufficient enough to provide me with the confidence to make it enjoyable. It think that if I knew a little bit of everything, maybe then a few doors would've opened for me. Something else that was bad for me, is that many of the things that I tried over and over again, and eventually mastered, I will not be able to do again, as I am not sure how I eventually got it right. I spent hours on it, and finally, by mercy, managed to do it – nobody knows how, and I will not be able to do it again.'

Not only did the participants explain their lack of software knowledge during the focus group interviews, but they also made comments to that same effect in e-mail messages they sent to the Elearn Yahoo! groups. Quotes EM 4.13, EM 4.17, EM 4.18, EM 4.19, EM 4.24, EM 4.25 and EM 4.35 from Chapter 4, and Quotes EM 5.14 and EM 5.19 from Chapter 5, as well as the following e-mail messages are evident of this:

Quote EM 6.2:

Hi Joanita
Ek weet nie wat om met die URL van my eie web site (Individual Assignment 2) te maak nie. As dit op die tribe se web moet kom vir 'n link …
Hendrik

[Translation]
Hi Joanita
I do not know what to do with the URL of my own website (Individual Assignment 2). When it has to go onto the tribal website for a link …
Hendrik

Quote EM 6.3:

I am experiencing some problems with the uploading of my files.
Please have patience. I am not giving up yet!!!!
Camilla

Quote EM 6.4:

ek kry nie jou pdf file oor die powerpoint oop nie. kan jy dit dalk weer stuur?
Dankie
anita

[Translation]
I cannot open your PowerPoint pdf file. Can you please send it again?
Thanks
anita

Quote EM 6.5:

Hi Anita
PDF is Adobe Acrobat files. Jy moet Acrobat Reader hê om dit oop te maak. Powerpoint kan dit nie lees nie. Laat weet as jy 'n Acrobat CD soek.
Groete
Gérard

[Translation]
Hi Anita
PDF is Adobe Acrobat files. You need Acrobat Reader to open them. Powerpoint can't read them. Let me know if you need an Acrobat CD.
Regards,
Gérard

Some participants mentioned their lack of knowledge with regard to specific software as well as to markup language. In the following quotes, the participants explain how they have attended to their problems.

Quote FG 6.28:

'You had to e-mail…because who knows Dreamweaver*?'*

Maria asked for help by posting a message on *Yahoo! Messenger* that read as follows:

Quote EM 6.6:

Need to send my report to the Webmaster to be linked. How should i [sic] go about [sic]?
Maria

The participants also experienced technological problems during their preparation for the *Interwise* session. They specifically referred to communication problems, which resulted from technological difficulties encountered with *Interwise*. The following quotes are indicative of the problems experienced by participants.

Quote FG 6.29:

'Well, I would like to say, at that point, I hadn't install …, so from my corner, there was no – I could hear everyone, I couldn't see at all. So that – and I talk about it, because that's a question. You have a class, a normal class, where a student puts up his hand all the time, but nobody wants to listen to him. What's that? And it's not only because – well, the thing is, it's a very nice instrument, but the communication lines are not ready for that.'

Quote FG 6.30:

'But the technical stuff, how do I do this?'

Quote FG 6.31:

'For me it was a technical problem.'

Quote FG 6.32:

'Everybody doesn't have the same technology. Everybody doesn't have the same computers.'

Quote EM 6.7:

This should work – others have had no problems, I think. It's my server so I hope I have the address correct [sic]. Case sensitive though and the site may be a little slow!
Bob

The following quotes from the focus group discussions and *Yahoo! Messenger* group postings also address the technological problems participants experienced during the *Interwise* session:

Quote FG 6.33:

'But again, I would speak, and it would take three seconds before I could get something.'

Quote EM 6.8:

I could not participate because I experienced diffulties in testing. My apologies.
Beulah

Quote EM 6.9:

We were all however inerested [sic] to connect with the lecture and be part of the session but were barred by unforeseen technological testing problems. … Beulah

Quote EM 6.10:

… on the technical side, the session went well … with some exceptions, Maria had no microphone, Mindy's volume was too low, Rachel could not speak at all, because her connection was too slow. A few others were unable to get things set up at all. I guess if one were doing sessions regularly, such technical problems could be sorted out. In South Africa, bandwidth will be a problem for some time yet.
Bob

Juanita wrote e-mail to her peers, which explained the problems she had encountered.

Quote EM 6.11:

Due to a gremlin on my mail system all mail was returned to me unsent. It seems that e-mail is sometimes worst that [sic] snail mail. At least you have the Post Office to blame for the cheque that got lost in the mail.!
Joanita

At another stage Joanita experienced further technical problems. She wrote the following e-mail message:

Quote EM 6.12:

Hannes / of een van die ander bright sparks
Ek het nou ge-ftp tot ek blou is in die gesig en my moermetertjie hardloop al die pad in die rooi! As ek op my shelter double click hou dit aan om 'n error boodskap te gee. Dit was so van die begin af. Ek het probeer om die webblad in die 2001 folder te sit en het ook 'n 2002 folder geskep maar niks wil werk nie.
Ek is nou 'n geswore behaviouris! Ek soek nou na 'n spoonfeedkursus waar iemand vir my kan wys en ek die stappe kan neerskryf. Ek kan 'n boek skryf oor die afgelope 48 uur wat ek voor hierdie skerm deurgebring het. Daar is party dinge wat ek tot 20 keer oor en oor en oor gedoen het - elke keer op 'n ander manier en ander volgorde net om te kyk of iets nie wil werk nie. En lees mens die help file word daar dikwels soveel 'jargon' gebruik dat dit net sowel in grieks kon wees. Om dit verder ingewikkelder te maak weet mens dikwels nie wat jou probleem is nie - jy kan dit dus nie eers in die help file gaan opsoek nie. En ek weet dat dit net 'n klein dingetjie behoort te wees. Maar wat? en hoe?
Geluk aan al die ouens wat dit betyds op die regte plek ge-ftp gekry het.
Joanita

[Translation]
Hannes / or any of the other bright sparks
I have now tried to ftp until I'm blue in the face and my temper is now very short! When I double click on my shelter it keeps giving me an error message. It was like this from the beginning. I have tried to place the web page in the 2001 folder and have also created a 2002 folder, but nothing works.
I am now a sworn behaviourist! I am now looking for a spoonfeed course where someone can demonstrate to me and I can write the steps down. I can write a book on the last 48 hours which I have spent in front of this screen. Some things I have done 20 times over and over – every time in a different manner and different sequence just to see if something will not work. And when one reads the help file so much 'jargon' is used so often that it could just as well have been in greek. To

make it even more complicated, one often does not know what your problem is – you can thus not even look it up in the help file. And I know that it is probably just a small thing. But what? and how?
Congratulations to all who, on time, got it ftp-ed to the right place.
Joanita

The following quotes indicate other occasions where participants had technological problems. Firstly, Bob's problem was that he did not have *Microsoft* software and could therefore not see what his assignment looked like when converted into MSWord. He posted the following message in the *Yahoo! Messenger*:

Quote EM 6.13:

Hi Linda … My essay as a MSWord doc. Im not sure what it will look like, since I don't have word [sic] and have converted it.
Bob

Mindy also experienced problems that she mentioned in *Yahoo! Messenger*. She wrote:

Quote EM 6.14:

I posted my article @ about 16:00 on Friday afternoon – I even checked to see if it was on the bulletin board and it was!! Now I can't find it! How is this possible? I am sending it again, hopefully this one stays for a while longer than the previous one!
Mindy

Beulah experienced some software problems. She wrote:

Quote EM 6.15:

Linda, I have o [sic] idea what the problem is about my document. I compiled it in Wordpad, first saved it on Word then saved it on HTML. Apparently some macros are missing or lost. Have any solution? Anyone out there!??? Please help!
Beulah

Further statements were made about how the lack of computer hardware and software resulted in some students not continuing with the module. Though some of the participants who discontinued with the module were present during the focus group interviews, more remarks about this issue were volunteered by those who did complete it. This could be an indication that the unsuccessful participants' still did not feel comfortable enough about their knowledge to give meaningful input. The following quotes deal with the issue of discontinuation:

Quote FG 6.34:

'They gave up the first week.'

Quote FG 6.35:

'I think the first week.'

Quote FG 6.36:

'Most people fall [sic] out the first three weeks.'

Quote FG 6.37:

'I think it's because they had to form a group on their own, and no one knew – nie een van hulle het geweet wat om te doen nie. [Translation] *- not one of them knew what to do.'*

Quote FG 6.38:

'I think it was a technical problem.'

Quote FG 6.39:

'..., the only thing that I think why most of them stopped, or whatever, is something maybe like HTML or whatever. They did not have that programming or technical know-how.'

Only one participant who did discontinue the module provided information with regard to why she discontinued the module. She said:

Quote FG 6.40:

'Actually, because I failed the computer assuming the human element, you know. I failed instantly, and, I asked myself, now we're in this module, this type of module, where key things would be. But now it was still there, you know, it was like going to class, and at some stage I just felt there's no support. There is not enough support.'

This particular participant did not mention technological shortcomings but rather referred to the 'human element'. She was not prompted by the interviewer to explain what she meant by the 'human element'. Read Quote FG 5.29 in Chapter 5 for more information on the time that she dropped out of the module.

It is clear that this participant experienced a fair amount of frustration with a number of aspects of the module. Asked whether she discontinued before or after *Yahoo! Messenger* was introduced, she replied:

Quote FG 6.41:

'Definitely I was frustrated by work as a team, definitely. And when we were writing a test, you know, people are busy writing, the time, you're struggling. You know, it's like... My test was with a team, here, not a test inside, so I mean, by the time you reach the test, how agitated are you?'

A discussion around the discontinuation of participation in the module only took place during the first focus group interview. None of the participants who discontinued attended the second focus group interview.

It is clear that the participants experienced frustration due to technical problems and a lack of technical know-how. These problems were aggravated by the use of unfamiliar software. The next inhibiting aspect that is discussed relates to the selection and compilation of groups (tribes).

6.2.4 Groups and interaction issues

Some participants found the manner in which the groups/tribes were selected troublesome to the extent that they saw it as an inhibiting factor in their performance on the module. One participant described how the tribes were formed, while another participant alleged that many of the participants experienced the first grouping into tribes as chaotic. Refer to Quotes FG 5.34 and FG 5.35 in Chapter 5.

The following e-message, sent by Anette to the tribe to which she belonged, reflected the chaotic situation. Anette wrote:

> **Quote EM 6.16:**
>
> *Hi, they say I have been added to your ranks, but I dont [sic] know who you guys are. We were supposed to create some games around an agreed topic, does anyone have any ideas? pls let me know.*
> *Anette*

The following quote illustrates that some of the participants were unhappy about the presence of students, who were not Master's students, during the first contact session with the lecturer. They also believed that some students who did attend, were not genuinely interested in the course. One participant remarked:

> **Quote FG 6.42:**
> *'… daar was tweedejaarstudente wat hoegenaamd nie belang gestel het om die kursus te doen nie. Ouens wat daar gesit het, wat regtig in hulle hart geweet het. Patsy het geweet sy wil nie deel wees van daai groep nie. Maar die ouens is so half gedruk gewees om daar te wees, en om deel te word van 'n groep.'*
>
> [Translation]
> *'… there were second-year students who were not at all interested in doing the course. Guys who sat there, who really knew in their hearts. Patsy knew she did not want to be part of that group. But the guys were half pressurised to be there, and to become part of a group.'*

One of the Afrikaans-speaking participants referred to the students who did not really want to participate as "hang-onners" (people who hung on - refer to Quote FG 5.113 in Chapter 5), while another participant explained that some members of his tribe had 'disappeared'. It could be assumed that these were the 'hang-onners' who

discontinued the module, as all participants in this study were registered as MEd students. The participant remarked:

Quote FG 6.43:

'Ons was net twee aktiewe lede in die span gewees. Ons span was so saamgestel dat binne die eerste twee weke, het al die ander lede gedisappear.'

[Translation]
'There were only two active members in the team. Our team was compiled in such a way that, within the first two weeks, all the other members disappeared.'

Participants were also of the opinion that the voting system adversely affected the performance of the participants who were less skilled. The suggestion was made that the competition should rather have been between the tribes and not between tribe members. This feeling is evident in the following quotes:

Quote FG 6.44:

'Ek dink die swakkeres sou beter gedoen het as dit nie 'n speletjie was nie, as ons in ons tribes gebly het die heeltyd, en as dit 'n kompetisie onder die spanne was, en nie spanlede onder mekaar nie.'

[Translation]
'I think the weaker ones would have done better if it was not a game, if we could stay in our tribes all the time, and if it was a competition among the teams, and not among team members.'

Quote FG 6.45:

'Maar dan moes ons so gebly het, dink ek.'

[Translation]
'I think we should then have stayed like that.'

The uneasiness with the module being a game and the fact that only one person could win a prize appeared to have had a debilitating effect on some participants, as they knew that they could not win due to a lack of technical skill. It appears that these aspects resulted in further uneasiness with regard to group interaction. One participant remarked:

Quote FG 6.46:

'En ek dink ook in 'n mate, ek meen, ek het dit van die begin af gedink, en ek dink ek het dit vir jou ook op 'n stadium genoem, is, ek weet verseker, die persoon wat gaan wen, is 'n persoon wat as 'n beginner, 'n Web master, as 'n Web master gekies is. 'n Persoon met al die, met die meeste tegniese kennis, gaan die persoon wees wat…'

[Translation]
'And I also think to a certain extent, I mean, I thought so from the beginning, and I think I also mentioned that to you during one stage, I know for sure, the person

> *who is going to win, is the person who, in the beginning, was chosen as Web master, a Web master. A person with all the, with the most technical knowledge, would be the person who …'*

A participant who was a Web master for his tribe responded to the previous comment as follows:

> **Quote FG 6.47:**
>
> *'Ons het gevra wie kan 'n Web site maak, en ek het vir hulle gesê: wel, ek kan* Front page *gebruik, en toe't ek, toe sê hulle okay, great, fine. Jy's Web master. So eintlik was dit 'n geluk by die ongeluk, want dit was baie ekstra werk.'*
>
> [Translation]
> *'We asked who could make a Website, and I told them, well, I can use Front page, and then I, and then they said okay, great, fine. You are the Web master. It was actually good and bad, because it was a lot of extra work.'*

When asked whether he felt that he worked harder than the others, this participant indicated that he did not feel it was a good idea that these types of questions were asked and he gave his reason for saying that:

> **Quote FG 6.48:**
>
> *'Ek dink net dit is nie goed vir my dat die vrae net gestel word, want die van ons wat hierso sit, was meeste van die mense wat aktief was. Ek dink dis belangrik dat daar 'n aparte groep moet wees, eintlik, wat bestaan net uit die wat onaktief was.'*
>
> [Translation]
> *'I just think it is not good that these questions are put (to us) only, because the people who sit here, were the people who were most active. I think it is important that there must be a separate group, actually, which consists only of those who were inactive.'*

It is evident from the above discussion that the participants could have experienced some of the questions relating to groups and group interaction as less acceptable, as they made them feel uneasy. The quotes noted in this subsection show that the selection of group members, the choatic manner in which groups were formed, the lack of participation, the voting system and the predictability of possible winners, were perceived as inhibiting factors.

The following inhibiting factor under discussion is concerned with the use of language and the fear of being misunderstood.

6.2.5 Language problems

Participants found it difficult to communicate in English, as it was not one of the participants' mother tongue. The participants communicated mainly in English when

they sent e-mail messages. Communication by means of *Yahoo! Messenger* proved to be less of a problem. A participant specifically mentioned that their mother tongue was used for communicating via Messenger and English for communication via e-mail. He said:

> **Quote FG 6.49:**
> *'Wel, ek het maklik gesê: Ag damn, ek kry nie iets reg nie, waar jy nou met die normale e-mail jou spelling sal check en seker maak dat jy alles…Ek dink ook dat die ander ding was, met* Messenger *het jy in jou eerste taal gekommunikeer; op die e-pos het jy in Engels gekommunikeer.'*
>
> [Translation]
> *'Well, it was easy to say: Dammit, I don't get it right, where with the normal e-mail you will check your spelling and make sure that you (have) everything…I also think that, the other thing was, with Messenger you communicated in your first language; with e-mail you communicated in English.'*

When participants communicated with a specific person via e-mail, in some instances they preferred to use their mother tongue, even though the message was available to everyone to read.

The following quotes support this finding:

> **Quote EM 6.17:**
> *hallo [21]Rolf*
> *ek kry nie jou pdf file oor die powerpoint oop nie. kan jy dit dalk weer stuur?*
> *Dankie*
> *Anita*
>
> [Translation]
> *hello Rolf*
> *I can't open your pdf file about powerpoint. Can you send it again please?*
> *Thank you*
> *Anita*
>
> **Quote EM 6.18:**
> *Hi Anita*
> *PDF is Adobe Acrobat files. Jy moet Acrobat Reader hê om dit oop te maak. Powerpoint kan dit nie lees nie. Laat weet as jy 'n Acrobat CD soek.*
> *Groete*
> *Gérard*
>
> [Translation]
> *Hi Anita*
> *PDF is Adobe Acrobat files. You need Acrobat Reader to open them. Powerpoint can't read them. Let me know if you want an Acrobat CD.*
> *Regards,*
> *Gérard*

[21] Rolf is a pseudonym for the lecturer who was responsible for the additional module which was presented at the same time as *CyberSurfiver*.

Quote EM 6.19:

LINDA-lief,
Sal dink daaraan sodra ek bevestiging kry dat ek nie alleen in die groep sit nie. …
Tjeers
Hank

[Translation]
LINDA dear,
Will start thinking about it as soon as I receive confirmation that I am not alone in the group. …
Cheers
Hank

Quote EM 6.20:

Hi Anita
Myne maak oop. Hoop jy kom reg.
Gérard

[Translation]
Hi Anita
Mine opens. Hope you succeed.
Gérard

Quote EM 6.21:

Hannes,
Kan ek ook maar asseblief 'n dak oor my kop kry anders gaan niemand weet waar om my te soek nie as hulle moet punte gee nie.
Groetnis
Joanita

[Translation]
Hannes
Could I please also get a roof over my head otherwise nobody will know where to look for me when they have to give marks.
Regards
Joanita

When the participants communicated in general with the tribe members or with their peers they seemed to use English as medium of communication. This is evident in the following quotes. Note that no individual is indicated at the top of the e-mail message. It was merely assumed that the communication was directed at all the participants.

Quote EM 6.22:

At last! Working on tribal as well as own site! I don't even want to think what my blood pressure is at this moment.
http://www.geacities.com/barthoza/
Camilla

Quote EM 6.23:

Due to a gremlin on my mail system all mail was returned to me unsent. It seems that e-mail is sometimes worst that [sic] snail mail. At least you have the Post Office to blame for the cheque that got lost in the mail.!
Joanita

Quote EM 6.24:

Maybe Group 2 should adopt Joanita if she is going solo in this group! Would this be possible?
Groetnis [regards]
Mindy

Quote EM 6.25:

It is working!!
Hendrik

Difficulty in communicating in a language other than their mother tongue may have prevented some participants from participating in online discussions and may even have prevented them from asking for assistance. These aspects are evident in the following quote:

Quote FG 6.50:
'… en ek is oortuig daarvan dat baie mense nie deelgeneem het op die e-pos nie, omdat die taal 'n probleem was …'

[Translation]
'… and I am convinced that, because language was a problem, many people did not participate via e-mail …'

One participant was of the opinion that, because they had to communicate in English, the communication that took place was not on a high academic level.

Quote FG 6.51:

'Dis op 'n baie laer vlak, die kommunikasie, waar ek dink as, in die eerste plek dink ek dat as 'n mens dit in jou eerste taal gedoen het, en in die tweede plek dat jy 'n klein bietjie meer tyd gehad het, sou daar dieper, op 'n hoër vlak, akademiese goed uitgekom het. Dat 'n mens meer issues sou bespreek het, en meer akademiese kommunikasie gehad het.'

[Translation]
'It was on a much lower level, the communication, wheras I think, in the first place, if one could do it in your own language, and in the second place, if you had a little bit more time, academic stuff on a deeper, and higher level, would have emerged. That one would discuss more issues, and would have more academic communication.'

Bob made the following comment on *Yahoo! Messenger* with regard to the use of language during the Interwise session:

Quote EM 6.26:

… Synchronous sessions need to be used when we need interactivity, when learning and feedback need to happen together. I found some literature to support points made during the session about native language. Liereature (sic) suggests that interactive sessions are best conducted in the native language of the participants, otherwise the activity tends to be dominated by native language used (which was to some extent true in our case). …
Bob

Mindy expressed her concerns about correct grammar usage with regard to the *Interwise* session:

Quote EM 6.27

*… I was very sceptic about the online session (**Interwise**). What if the mic [sic] doesn't work, do I speak too load [sic] or too soft, will I remember the tenses, what if my dear computer starts with his tricks again…*
Mindy

A low proficiency in English is evident in the poorly constructed quotes obtained from the focus group interviews, e-mail messages and messages posted on *Yahoo! Messenger.* This may also have been due to the pressure associated with time. As participants were, to a certain point, obliged to use English, it may have improved the ability of some of them to use the language during social and academic interaction. The inability to communicate well in English inhibited free participation in electronic discussions and resulted in a lower level of academic discourse. The next factor that was perceived as inhibiting performance on this module was a lack of time and a feeling of being overloaded with work.

6.2.6 Time and work overload

As all the participants had families and full-time jobs, and were part-time students, it can be assumed that they expected to be engaged in their academic activities after working hours. It could also be assumed that they knew that they would have to sacrifice time that was normally spent with the family or on social activities. An analysis of the quotes reveals that time and money were inhibiting factors. When asked by the interviewer how they coped, one participant answered as follows:

Quote FG 6.52:

'No, I coped quite well, except for the time and the finance. That was not something I could cope with.'

The limited amount of time available and pressure due to limited time were issues of concern mentioned by participants. This is evident in Quote 4.82 in Chapter 4 as well as quote FG 6.53 given below:

Quote FG 6.53:
'Tyd, en ek dink jy't baie gedoen om te probeer en weer probeer maar jy't nie 'n clue wat het jy so gedoen, omdat daar soveel tyddruk was.'

[Translation]
'Time, and I think you have done a lot to try and try again but you do not have a clue of what you have done, because of all the pressure on time.'

It seemed that the lack of time was mentioned quite often. This is evident in Quotes FG 4.17, FG 4.59, FG 4.60, FG 4.61, FG 4.65, FG 4.91 and FG 4.106 from Chapter 4 as well as the following quotes:

Quote FG 6.54:

'..., because there was just no time for a tribal council. And I think that's a pity.'

Quote FG 6.55:

'But if it was only the mark as they put it - it was time that was going...'

Quote EM 6.28:

... in any event, I don't have the time at present to retype everything or to try and find whatever I responded to. ...
Mindy

Quote EM 6.29:

A greater understanding of both synchronous and asynchronous tools requires more time than what we are able to have in this course.
Rachel

Quote FG 6.56:

'You do get some subjects that you had to do summaries...because nobody...but because you were in press of time [sic] to do the next thing.'

Quote FG 6.57:

'Om byvoorbeeld daardie scrollbar wat ons moes maak – ek kan nie vir jou sê hoeveel ure het ek daaraan spandeer nie.'

[Translation]
'For example, that scrollbar we had to make – I can't tell you how many hours I spent on that.'

Quote FG 6.58:

'So eventually I didn't have time to do the individual things, because I was now so trying to get the group, you know, trying to do my part for the group thing.'

Sanet requested extra time from the lecturer in order to complete assignments. Her communication indicated that she had read the messages posted by other participants and was aware that time was a problem, not only to her, but also to her peers. She wrote:

Quote EM 6.30:

Hi All
Linda, I'm in the dark too. I had problems connecting and staying connected with the Net- resulting in changing to a new service provider ABSA*. Reading all the comments, and between the lines, I think I'm not the only one who would like more time this time round. Please, isn't it possible to postpone all these assignments to next week to give all dof [dense] people like me a chance to find my feet. …*
Please help!
Sanet

In the following quote, the word 'rushing' indicates that time played a significant role in the life of the specific participant:

Quote FG 6.59:

'I really had to, sometimes between two classes, in an hour's time, get back to work. …. It was horrendous. So it really meant rushing.'

For the first three weeks of the *CyberSurfiver* module, the participants had to attend classes for another course, which was presented at the same time. This placed more demands on the time available to the participants. The second module was discontinued and one participant was convinced that the added responsibility and workload were responsible for their increased stress levels. More than one participant addressed the issue of the additional module. This is evident in Quote FG 4.54 in Chapter 4 as well as the following quotes:

Quote FG 6.60:

'We sat here for three weeks, and every time there was a … We were supposed to make a database together with the survivor thing. The second part of the module, the second part of the mark, would be an online portfolio of ourselves.'

Quote FG 6.61:

'Yes, on something completely different, which we worked in Dreamweaver *and Access databases. It didn't work. It never worked, because the lecturer couldn't get it to work. So that was a lot of stress, because you knew that half of your mark now hung in the balance, because of something that doesn't work.'*

Limited time seemed to have impacted on the participants' sleeping patterns as well. This is evident in Quote FG 4.24 in Chapter 4, Quotes FG 5.58 and FG 5.62 in Chapter 5, as well as the following quotes:

Quote FG 6.62:

'… soos iemand al gesê het, om drie-uur in die oggend te sit, en te weet daar's vier ander ouens ook daar.'

[Translation]
'… as somebody has said already, to sit at three o'clock in the morning and to know there are four other guys there (on the Internet) as well.'

Quote FG 6.63:

'No, I had to reschedule my life as well, around my baby and my wife as well, so I also started working at ten o'clock when they went to sleep.'

Limited time due to a full schedule also influenced the participants' decisions whether or not to read e-mail messages. Participants had the following to say in this regard:

Quote FG 6.64:

'I didn't really mind. I just didn't read them.'

Quote FG 6.65:

'I just didn't have the time to even open them. If I recognised that it's something that's, you know, that's got to do with me –'

Time was an important issue during the six-week period that the *CyberSurfiver* module was presented. Time constraints were aggravated by the fact that the participants had to do many activities for the first time, and that they had to figure many technicalities and procedures out on their own.

In addition to time constraints, the participants were also faced with financial demands.

6.2.7 Financial demands

Although it is generally considered to be quite expensive to register for a Master's degree at a university, none of the participants complained about that. Their complaints with regard to money as an inhibiting factor were mostly concerned with being on the Internet. Internet access in South Africa is expensive compared to that of other countries such as in the United States of America.

One participant indicated that he coped well with the module, but that he did experience financial and time constraints (refer to Quote FG 6.52). Another participant was of the opinion that they were not informed sufficiently with regard to the financial implications of doing this type of course (refer to Quote FG 5.113 in Chapter 5). Early during the module, a participant made known to her peers how money impacted on her activities related to the module. She wrote the following e-mail message:

Quote EM 6.31:

Hi
I would like to know how the rest of you feel, but we are not supposed to talk about it. But I do NOT have the time or the money (remember, I am a teacher) to play

an online computer game where eventually, after 30 minutes of being online, the board for the scores are [sic] not reachable or offline! Please count me out on this one – or vote me off. I do have another problem – I do not watch TV, which means I have no idea what survivor is, hat [sic] is it all about?
Anita

During the second focus group interview and in some e-mail messages, participants mentioned the following financial issues related to a course of this nature. Note that some of the participants specifically referred to the financial impact the module had on their personal lives:

Quote FG 6.66:

'En jy moet 'n goeie salaris verdien. Jy moet uitkom aan die einde van die maand.'

[Translation]
'*And you have to earn a good salary. You have to make ends meet at the end of the month.'*

Quote FG 6.67:

'Jy moet 'n baie, baie goeie verhouding met jou bankbestuurder hê.'

[Translation]
'You have to have a very, very good relationship with your bank manager.'

Quote FG 6.68:

'Ek weet nie wie van julle het die probleem gehad nie, maar toe my eerste telefoonrekening kom, was dit tussen my en my vrou affektief nie goed nie.'

[Translation]
'I don't know if somebody else had the same problem, but when the first telephone account arrived, it was affectively not very sound between my wife and me.'

Quote FG 6.69:

'Miskien moet mens net gewaarsku word voor die tyd dat dit deel van die kostes is van die kursus.'

[Translation]
'Maybe one has to be warned beforehand that it is part of the costs of the course.'

Quote FG 6.70:

'Jy moet laat weet dat die kursus nie vyfduisend rand is nie, maar plus, plus, plus.'

[Translation]
'You have to let (students) know that the course is not five thousand rand only, but plus, plus, plus.'

Quote EM 6.32:

… The other problem is the time. 1 hour became 2½ hours – that is a lot of money online lecturing, …
Pedro

Quote EM 6.33:

I enjoyed it very much, but still waiting for the phone bill. … Anita from Uno

Participants made the following remarks in e-mail messages, about the financial costs incurred by the *Interwise* session. The impact of high costs on their personal situations is evident in the following quotes. They wrote:

Quote EM 6.34:

… my wife is going to kill me if she sees this month's phone bill!!
Gérard

Quote EM 6.35:

Hi Camilla The sound of $$$$$ is haunting me as well!
Sanet

Quote EM 6.36:

Gérard, I agree with you. My wive [sic] is talking about divorcing me (money used for my child's clothes used for the discussion). You know, it is all well and said that if you take this course and see what you learn each day, mony [sic] musn't be a problem. What if you have R350 to survive with until the 23 August 2002? That's [sic] the facts!!!
Pedro

Quote EM 6.37:

As time = money, the presentation must be well planned and organized – ensuring you don't [sic] drift away from the topic and was time. …
Hendrik

Quote EM 6.38:

I tried to get the system going at home on the bread-and-butter-generating machine (money meant for housekeeping?) in the middle of the night, …
Anette

The direct and indirect financial impact on the participants led to many discussions among the participants. It also caused strong feelings and influenced the relationships the participants had with family members. The added time spent online as a result of poor technical skills and a lack of knowledge increased the financial expenses of the participants. Because they were not sufficiently informed with regard to the additional financial requirements for the module, such as fees for telephone and Internet access, they were caught unawares and could not plan sufficiently for these expenses. It is more expensive to the student in South Africa, than to students in the United States of America, to do a course of this nature. The last inhibiting factor identified is problems participants experienced with their service providers.

6.2.8 Problems with the service provider

There are many Internet service providers in South Africa, but the only way in which the Internet can be accessed is by means of a telephone line. As there is only one landline telephone company available to the average Internet user in South Africa, namely *Telkom*, service providers and participants are forced to use the services of this company. Broadband Internet services by *Telkom* in South Africa has been introduced in 2003, which is after the participants completed this module, and therefore they did not have access to broadband Internet services. If one considers the financial complaints of the participants and the cost of broadband services, it is unlikely that they would have obtained it, even if it was available during the time of the *CyberSurfiver* module. The problems the participants experienced with regard to *Telkom* are evident in the following quotes:

Quote FG 6.71:

'Exactly. It's like telling us let's use all Telkom communication, and online, and one is not working with Telkom. It's not working.'

Quote FG 6.72:

'Telkom's the problem. Ja [yes].'

Quote FG 6.73:

'She lives in Silver Lake, so it's all the way out to town, and out of town. So she always had a problem with that. Even when I spoke to her on Yahoo! Messenger, she would break up. But then in town, it wasn't a problem.'

Quote EM 6.39:

I really think it went well. For me it was a new experience. I didn't think it can work so well in South Africa. There were a few problems with some people, thanx [sic] to the monoploy [sic] of Telkom. … , please can't we get a better telephone company in South Africa??????????
Pedro

Quote EM 6.40:

I agree about Telkom *– apparently the 'new' landline company is on the way! I'll be the 1st client! : -)*
Gérard

Problems experienced with regard to Telkom was probably the one aspect of their experiences and exposure that the participants had no control over.

6.3 Literature control

The discussion on inhibiting factors relates as follows to the quotes in this chapter:

- Quotes FG 6.1 to FG 6.8 pertain to the negative experiences which the *CyberSurfivers* experienced with regard to voting;
- Quotes FG 6.9 to FG 6.23 relate to the participants' perception of the insufficiency of information provided before the onset of the module;
- Quotes FG 6.24 to FG 6.41 and Quotes EM 6.1 to EM 6.15 pertain to the participants' lack of computer skills;
- Quotes FG 6.42 to FG 6.48, as well as Quote EM 6.16, pertain to groups and interaction issues;
- Quotes FG 6.49 to FG 6.51 and Quotes EM 6.17 to EM 6.27 pertain to problems experienced with regard to language;
- Quotes FG 6.52 to FG 6.65 and Quotes EM 6.28 to EM 6.30 relate to problems with time and work overload;
- Quotes FG 6.66 to FG 6.70, Quotes EM 6.31 to EM 6.38 pertain to financial problems; and
- Quotes FG 6.71 to FG 6.73 and Quotes EM 6.39 to EM 6.40 pertain to problems experienced with regard to the service provider.

The first cluster under the category *Inhibiting Factors* deals with the participants' negative experiences with regard to voting. When one considers the quotes in Subsection 6.2.1 in this chapter, it is clear that the cluster addresses issues of group interaction. Such issues have already been discussed in Chapter 4 under Subsection 4.3.4. In an educational situation, groups usually work and stay together until they have obtained the outcomes set for them. However, this was not the case with the participants in the *CyberSurfiver* module. The voting off of tribe members was a unique situation for the participants. The kinship that developed in the *CyberSurfiver* tribes is evident in Chapter 4 under Subsection 4.6.1. One could reason that, due to feelings of altruism and collectivism, participants found it hard to vote others off. In addition, as individuals, most participants were not very competent in the Internet environment, as well as using the different types of software needed to complete their assignments. Therefore, they needed the combined expertise of all the group members, in order to complete all their tasks and assignments.

As the number of group members diminished due to the voting process, remaining members' responsibility increased with regard to meeting deadlines and attaining outcomes. As a result, more resistance, especially by the third and fourth week, was shown for voting members off. It appeared that being voted off also affected participants' egos, which could be a reflection of the human need to maintain a positive self-image, at home and at work. At this level of education, participants perceived themselves as role models, who are supposed to set an example and be successful, and failure could lead to a decrease in positive self-image. Lastly, the mere act of voting another person out was in essence an act of securing one's place in the tribe.

It is important for the mental well-being of students to understand what is required of them before they start with any type of educational course. This is especially the case with distance education and more so when students are required to synchronously log in, for example, for online discussions. In addition, it has become clear that if students are not informed of the required hardware and software, and the necessary computer and other software skills they need, they are not able to plan and prepare themselves properly for the course. It then also becomes an additional financial burden to the student to acquire the necessary equipment and/or skills. Not being fully prepared for a course of this nature can be very demotivating to the student, and influence her/his plans for occupational advancement.

Hara and Kling (2000) refer to a student, who, during an interview, highlighted her frustration with not being adequately informed of the prerequisites required for the course she was registered for. They quote her as follows:

> *'First of all, inappropriate prerequisite statement. For example, there is nothing to say that you should know HTML, but our first assignment was creating a web site. Fortunately, I knew it. I'd explored learning how to do HTML by myself. If I didn't know, I just cannot imagine how to get through. … Third, accessibility to technology. This is related to the prerequisite. There is nothing that says we should have access to a web server. However, when we developed the web site as an assignment, we had to have the server access. Since I work for a school, one of the technical people helped me to connect to the web server. If I didn't have these resources here, I would have dropped this course* (Hara and Kling 2000).'

Salmon (1998:5) found that students, due to their lack of skill, knowledge, experience, and level of anxiety, found it hard to navigate even the most simplistic software. The students, who participated in the *CyberSurfiver* module, had similar complaints to that of the above-quoted student with regard to prerequisite information for the module. As can be seen from their quotes (FG 6.9 to FG 6.23), they made many suggestions with regard to information future students should be given when they do a similar course.

McVay Lynch (2001) studied the phenomenon of high dropout rates and the lack of re-enrollment in online courses. She found that an online student orientation course made a significant difference in student attrition as well as re-enrollment for online learning. McVay Lynch (2001) also found that many students lacked fundamental computer skills and were newcomers to the Internet. This was also the case with the students who participated in the *CyberSurfiver* module, and who expressed experiences that inhibited their efforts to adapt to the online learning environment as required for the *CyberSurfiver* module.

McVay Lynch (2001) suggests that orientation courses, which could simulate the actual environment that students will encounter in their registered course, should not be presented entirely online, as online learning is new to most students. According to McVay Lynch (2001), feedback from students indicated that it is not sufficient for the orientation course to focus on technology and the Web only, but that it should also allow for the following:

- Assist students in becoming aware of adult learning theory;
- Elicit self-awareness of personal suitability for the online learning environment;
- Analyse and discuss adjustments that students might have to make to increase success in their studies;
- Provide students with many opportunities to engage in extensive Web-based interaction and communication with their lecturers and their peers; and
- Allow significant time for student reflection on their new environment.

Wegerif (1998) is of the opinion that a preparatory course should be of such a nature that it brings all the students up to the same level of competence and knowledge. Galusha (1997) believes that students should at least be taught the fundamentals of the operating system of choice in online courses. It would imply that, for online learning to be successful, technological barriers must not be an issue. Students should, therefore, before they enroll for a course, be fully informed of the technical

(hardware) requirements, as well as the knowledge and skills they will need to be successful.

If students contemplate enrolling for an online course that requires knowledge of computers, the students must first be taught the fundamentals of the operating system that will be used for the online course. Currently (January 2005), the information for the MEd (CAE) course on the website of the University of Pretoria contains very explicit information for prospective students, which was not the case in 2001/2002, when participants in this study were enrolled for the same course. In addition to these changes, an interview to assess the computer skills of the participants has been introduced as part of the selection process.

Smith (2002) and McDonald (2002:14) note that students experience a lack of training particularly with regard to technical issues. McDonald (2002:14) further notes that many '*adult students are not well versed in the uses of technology such as computers and the Internet*'. McDonald is of the opinion that students receive large volumes of electronic-based information, but that some students are not able to use it due to their lack of competence. It is therefore suggested that students must be taught how to manage the materials they receive.

In a study done by Muse (2003:255), it was found that, in order for students to feel that they are ready to start with an online course, they need to acquire resources right at the beginning of the course. This could include the downloading of files, the gaining of access to software and the download of plug-in software. Muse (2003:255) is of the opinion that, if this does not happen, students will discontinue the course while they may still register for another course, or educational fees are reimbursable.

Students not only need software knowledge and skills, but also need to know what the hardware requirements are. Galusha (1997) notes that a lack of the proper hardware may place undue financial hardship on some students. In addition, psychological exhaustion can be caused by their efforts to meet the requirements, which can contribute to the student having negative experiences with online learning.

Hara and Kling (2000) provide quotes, from a student's e-mail messages sent to her lecturer, which express frustration with struggling to download a file. The emotional exhaustion is evident in the words the student uses:

> *I have spent one hour trying to follow your directions. I am getting an error message. The first time I tried to download it as a zip file, the error says, cannot access this file. I am getting extremely frustrated : (* (Hara and Kling 2000).

The following e-mail message, which was sent the next day, emphasises the negative emotions the student had. However, she was not going to quit the course. She wrote:

> *This computer is very frustrating. I would imagine it is like sitting in a class and only understanding some of what was said, then asked to answer a question. I have felt it... panic... isolation... frustration... anger. This has been a very good lesson. I will keep trying* (Hara and Kling 2000).
> [My emphasis]

According to McMahon, Gardner, Gray and Mulhern (1999:302), students perceive the lack of training in computers as '*the strongest inhibitor to computer use'*. The quotes recorded and presented by these authors are similar to those presented in Subsection 6.2.3 of this chapter.

Group interaction is a vital part of collaborative on-line learning. In Chapter 4, under Subsection 4.3.4, a discussion on group and interaction issues was presented, which contributes to a cluster under the third category of this study called Inhibiting Factors. Working together in groups does promote aspects of cognitive development and lead to a high level of student satisfaction (Van Ryneveld 2004:74).

Interactions within small groups may lead to disagreements, mild irritations and conflict between members (McNamara 1999). The conflict in the *CyberSurfiver* tribes may have been the result of personal incompetencies, such as when members became impatient with those who failed to meet the deadlines set for the groups. Green ([Sa]) is of the opinion that an individual's frustration may have an effect on the other members of a group. This effect may be positive or negative.

If two people feel the same about something they probably have the same attitude towards the event or object that elicits the feeling. Group competition may influence morale and cohesiveness, both within and between groups. This may lead to a feeling of antagonism, not only toward the members of the group, but also toward the group as a whole (Wood *et al.*1996).

The participants indicated that they experienced communication problems in their groups due to not being able to converse freely in their mother tongue. Problems with regard to not being able to use their first language for online communication have been discussed in Subsection 4.4.4 of Chapter 4. Participants expressed a fear of being misunderstood by others, which they perceived as a constraining factor.

In a study done by McVay Lynch (2001), students had to integrate technology with human interaction in order to communicate effectively. Most students had no idea how to accomplish this objective. These communication problems made students feel disconnected from the campus, and reduced self-directed learning. It also affected their levels of motivation.

Hara and Kling (2000), in their study, referred to a participant who diligently gave attention to spelling and capitalisation. When another student posted a message with an apparent incorrect word, she quickly corrected it by remarking to the researcher, who was observing her, what the student actually meant. The first message read as follows:

> *I like the action of calling rows* (Hara and Kling 2000).

The first student immediately responded to this by remarking to the researcher as follows:

> *I think what she means is 'calling role.' Sometimes it's confusing, the half of the students are non-native speakers* (Hara and Kling 2000).

Communication situations, such as the above, may be problematic. None of the *CyberSurfiver* participants' in this study spoke English as a first language, as already mentioned in this study. Not only did they have to deal with their own inability to use English in a social and academic context, but also had to correctly interpret the second language English of their peers. Though language was perceived as a restraining factor, it did not have a marked influence on the performance of the participants, as most of them finished the module.

One *CyberSurfiver* participant, quoted in FG 6.50 in this chapter, was convinced that language was the reason why some participants did not use e-mail for communication purposes. Though it is accepted that language may be problematic and inhibit some students to communicate online, the situation could also have been perceived as an

opportunity to improve one's communication skills. This was probably a benefit that the *CyberSurfiver* participants did not consider, as they were preoccupied with time pressures and work overload.

According to the American Association of University Women's (AAUW) Educational Foundation, '*multi-tasking is more that just a buzzword'*. AAUW (2001) found that online learning is increasing and that sixty per cent of the non-traditional online learners are women, who are employed and older than 25 years of age. By furthering their education, a '*third shift'* is added to these women's existing responsibilities as mothers and employees. Quoting their Executive Director, Jacqueline Woods, AAUW (2001) reports:

> *'Technology does not create more hours in a day, but leaves women—who shoulder most of the family and household responsibilities—improvising to squeeze in education.'*

This study did not focus on gender issues in online learning. However, the quote emphasises the fact that online learning opens new opportunities to people who previously might have been excluded from education due to the roles they fulfil.

According to Kramarae (2001:3), women and men are juggling work, family, as well as further education throughout their lives. She mentions that most mothers report that they study during late evening hours, and early morning hours. As the *CyberSurfiver* study indicates, there experiences are not unique to female students. When considering the quotes of the participants under Subsection 6.2.7 of this chapter, it is clear that the male students were also under pressure to manage their time with regard to the different roles they fulfil.

The participants in this study indicated that they often had to attend to coursework while their family members were sleeping. Similar results were obtained from Kramarae's (2001) study. One of the participants in Kramarae's study reported:

> *'I meet my deadlines at great cost. I lack sleep and lack personal 'fun' time for the time being'* (Kramarae's 2001).

Lefoe, Gunn and Hedberg (2002) also quoted a student who mentioned the huge impact online learning had on her/his personal life. The student said:

> *'Well, I'm unhappy, I don't have a life. I don't go for a walk any more, I don't speak to my children...'* (Lefoe *et al.* 2002).

Gabriel (2004:65) indicates that participants of her study experienced the asynchronous nature of online learning as both a challenge and an opportunity. She mentions that some students perceived the completion of online assignments early morning, while family members are still asleep, as convenient, whereas others perceived working late in the evening as convenient.

The CyberSurfiver participants found the limited time as a huge constraint. They specifically mentioned the large number of e-mail messages they received. In a study conducted by Gabriel (2004:65), participants also mentioned that the large amount of e-mail, which they received, was a burden on their time, while they also had to relate the content of the learning course to the online environment, and become comfortable with their peers. She quotes one participant who said:

> *'The time glass was really disempowering for me, I guess'* (Gabriel 2004:65).

Hara and Kling (2000) also report that students perceived the large amounts of e-mail as a problem, especially during periods of short and intensive discussions. They quote one student as follows:

> *Ah ... I cannot catch up with all of you : (* (Hara and Kling 2000)

Note the emoticon that depicts frustration in the above quote. Hara and Kling (2000) quote a number of students who commented on the overwhelming number of e-mail messages they had to attend to. Below is one of these quotes:

> *'I don't really like turning on the computer and finding that I have eleven messages on my e-mail. It's a pain. I mean to answer that many things, just talking in conversation would be so much easier, rather than replying and doing all the stuff you have to do. So, that is just time-consuming, but it is a part of at a distance. I think if you are doing that, you have to be aware that you're gonna be spending more time with computer problems, not getting on-line, software freaking out, crashing, whatever it's gonna happen, it gonna take you a lot longer, ...'* (Hara and Kling 2000)

At some stage some *CyberSurfiver* participants requested more time to complete assignments. Curtis and Lawson (2001:30) quote a student, new in the online environment, who mentioned late submission of assignments. The student said:

> *'This was new to me and it took me a while to get my head around how it was going to work. I felt more time was spent chasing late submissions' (Curtis and Lawson 2001:30).*

The work overload, such as experienced by the *CyberSurfiver* participants, is also evident in the discussions of other studies as well. Burge (1994) quote two students who struggled to manage the large amounts of information in their online course. They said:

> *'(Laughs) That's right!! … Every time I logged on it was like "Here comes the wave." You know, I could see myself trying to build the castle before the water comes' (Burge 1994).*

> *'It was an inhuman amount of work' (Burge 1994).*

The suggestion is that online lecturers have to take heed of the effect of over-teaching and overloading online students. According to Kramarae (2001:17), students might find themselves working more with the technology than with the lecturer or the subject content.

Finances were another inhibiting factor for the participants in this study. Selwyn, Gorard and Williams (2002), as well as Kramarae (2001:14), are of the opinion that the most obvious obstacle most adult learners, who plan to study or do study, face, is cost. Cost is seen as a restrictive factor, as adult learners are often already faced with basic expenses related to childcare and other domestic responsibilities. According to McFadden, Marsh II and Price (1999), the cost of online learning is not an easy question, as the answer will depend on what the person wants and how s/he will use it.

Although Kramarae (2001:3) indicates that computer-related costs include a computer and the necessary hardware, the *CyberSurfiver* participants did not mention these as inhibiting factors. Instead, they specifically addressed the cost of Internet access. Kramarae (2001:3) mentions that some participants in her study had access to computers, e-mail and the Internet through their workplace. Others had to rely on

the availability of an Internet Café, but most had personal computers, connected to a modem by which they had access through a telephone line to the Internet. At the time that the *CyberSurfiver* module was active, broadband Internet access (ADSL) was not yet available in South Africa and the participants had to pay, as part of their telephone accounts, relatively high amounts of money for a very slow Internet connection.

Kramarae (2001:3) is of the opinion that, when determining who has or has not access to online learning, additional costs, such as Internet access fees and telephone fees, need to be considered in addition to tuition fees. Were they timeously informed of the expected extra expenses, participants in the *CyberSurfiver* module might not have mentioned money as an inhibiting factor. Due to the fact that many online learners are novice learners and novice Internet users, it could not be assumed that they would know beforehand that they would be obliged to communicate and do assignments online.

The participants also experienced problems with the 'service provider'. One can presume that, in online learning environments, 'service provider' may refer to the server at the university where the students is enrolled, as well as the student's personal Internet service provider, which can be any of a number of service providers in South Africa, or the telephone company who provides the telephone line for modem access. Smith (2000) mentions that disadvantages of collaborative online learning may include technical difficulties, slow access times, lack of training and unclear expectations.

Some points made by Smith are reiterated by Peters (2001), who mentions that students become frustrated by the periodic slowness of Internet connections or server problems. Peters (2001) states that slow connections, servers that are down and inadequate computer memory, may turn the computer experience into a hindrance to education. Also, students, who already lack confidence in computer equipment, may transfer their feelings of inadequacy to the learning experience.

Currently (2004/5), broadband Web access is available in South Africa. This facility will decrease online time as well as reduce Internet costs for online students. The establishment of new landline telephone companies may provide a more competitive market with regard to Internet fees. Gérard, one of the *CyberSurfivers* in this study, wrote the following e-mail message to the group during a time when many

participants were struggling (refer to Quote EM 6.35 in this chapter, as well as Quote EM 4.23 in Chapter 4).

> *I agree about* Telkom *– apparently the 'new' landline company is on the way!*
> *I'll be the 1st client!*
> *: -)*
> *Gérard*

6.4 Summary

In this chapter, the Third Category, namely *Inhibiting Factors*, which was identified during the data analysis and coding process, was discussed. The discussion commenced with explanations of the concepts identified in the three different clusters of Category 3. The concepts 'Inhibiting' and 'Factors' were defined and the inclusion and exclusion criteria for the concepts provided. Further discussions were based on the quotations obtained from the transcripts of focus group interviews, the printouts of synchronous conversations on *Yahoo! Messenger* and the e-mail text messages that students sent to each other and the lecturer during the time that the module was active. Literature applicable to the clusters of Category 3 was discussed in an effort to compare the experiences of the *CyberSurfiver* participants with findings of similar studies done.

The next chapter, Chapter 7, presents the conclusions of this study. A summary of the study design will be provided, as well as the main findings of the study. A reflection on this study will be included, as well as recommendations for future research. The research objectives will specifically be addressed.

Table of content

7 Conclusions and Recommendations

7.1 Introduction

In Chapter 6, the last category, namely *Inhibiting Factors*, identified during the data analysis and coding process of this study, was discussed. This chapter presents the conclusions drawn from the study. An overview of the study is provided, the research objectives restated and the main findings presented. My reflection on the study is included, and recommendations for future research are made.

7.2 Summary

A number of researchers (Adkins 2004; Bastable 2003:332; Lee *et al.* 2004; Murray 2002) are of the opinion that inadequate attention is given to the affective domain of online learning, and this is also reflected in the limited research done in this area.

Cognition and emotion are two closely related, ongoing and changing streams of experience that interact with one another and influence overt behaviour in subtle complex ways (Cousin & Davidson [Sa]). Affective learning forms part of all kinds of educational experiences, regardless of whether the primary focus of learning is on the psychomotor or the cognitive domain. When students are exposed to these different types of educational experiences, their feelings or emotions will be stirred (Bastable 2003: 333).

The aim of this study was to investigate the affective experiences of MEd (CAE) students who were enrolled for an online module, called *CyberSurfiver,* as part of their study programme. Specifically, the study aimed to investigate the meanings that students attached to their affective experiences during the *CyberSurfiver* module.

There are numerous reasons why students stay on an online course. The rationale of this study was based on the fact that students have affective experiences that influence their decision to persevere with a course. The purpose of this study was thus to explore and interpret the participants' affective experiences in an online learning environment and to discover important categories of meaning about their affective experiences (Marshall and Rossman 1999:33).

The research question for this study was:

> **What are the affective experiences of students in an online learning environment?**

The following sub-questions were asked in order to answer the research question:

- How do online students cope in an online learning environment?
- Why do online students ask for help?
- Why do online students offer help?
- What are the principal causes of motivation and frustration?

- What is the nature of the cooperation between group members (the nature of peer support)?
- How, and to what extent, do affective experiences of students contribute towards the successful completion of an online course?
- What could make a student drop off a course regardless of volition?

The above information was also presented in Chapter 1. In Chapter 2, a literature study, related to the context of this study, was presented. The literature study addressed aspects such as active learning, cooperative learning, constructivist learning, the learning environment, the affective domain, and online learning. A conceptual framework, taking into consideration the nature of the *CyberSurfiver* module, as well as the specific research objectives, was developed from the literature study.

Chapter 3 provided an overview of the research methodology and process that was followed in this study. This study falls within the *constructivist-hermeneutic-interpretivist-qualitative paradigm*. As the affective experiences of participants within an online learning environment were explored and interpreted, the research design was exploratory, descriptive and contextual in nature. A schematic representation of the research design was also presented in Chapter 3.

Chapters 4, 5 and 6 dealt with the three categories identified during the data analysis and coding process. In Chapter 4, the first category identified, namely *Curative Factors*, was presented. The concepts, presented in the three different clusters of this category, were discussed.

Chapter 5 contains discussions on the second category, namely *Process of Affective Development*, which was also identified during the data analysis and coding process. The discussions include explanations of the concepts identified in the three different clusters of Category 2. After comparing the quotes of the participants to the five levels of Krathwohl's Taxonomy, it was concluded that the participants' affective development increased in complexity and could be compared to the levels of Krathwohl's Taxonomy. The participants' affective development was further assessed by means of a learning cycle model developed by Kort and Reilly (2002a:60-1). The comparison drawn to Kort and Reilly's model turned out to have the same result as that of the comparison to Krathwohl's Taxonomy.

The next category, *Inhibiting Factors*, was discussed in Chapter 6. The inhibiting factors discussed, as experienced by the participants, were not necessarily affective in nature, but complemented the affective nature of their learning experiences.

The discussions in Chapters 4, 5 and 6 included quotes obtained from the transcripts of focus group interviews, printouts of synchronous conversations on *Yahoo! Messenger* and e-mail text messages that students sent to each other and the lecturer during the time that the module was active. Literature applicable to the three categories was discussed in Chapters 4, 5 and 6 in order to compare the experiences of the *CyberSurfiver* participants to those of participants in similar studies.

7.3 Discussion of the sub-questions set for this study

In order to answer the research question, the sub-questions set for this study will be discussed.

7.3.1 How do online students cope in an online learning environment?

A priority for the participants of the *CyberSurfiver* module, as adult learners and employees in educational positions, was to ascertain that their peers, colleagues and families would not think less of them. It was important to them that their image to the outside world, as role models who teach others and who are supposed to be knowledgeable, should not be tarnished. Secondly, the participants were also concerned with being exposed as a result of their lack of knowledge and skill with regard to the requirements for the module. They were concerned that their peers would think less of them. This anxiety triggered coping mechanisms that were exhibited in a number of different ways.

Some participants exhibited behaviour that was more individualistic in nature. One way in which participants exhibited this kind of behaviour was to do individual assignments only and not to take part in the group activities. By doing individual assignments, they hoped to accumulate sufficient marks to pass the module. This indicated that they engaged in risk-taking behaviour, as the module was developed and based on group activities.

In contrast to the individualistic behaviour, some participants exhibited more altruistic behaviour. Altruistic behaviour is motivated by a need not to let the group down.

Participants who engaged in altruistic behaviour concentrated on doing collaborative assignments only. Again, in this instance, risk-taking behaviour was exhibited, as the participants could not have known for certain that their efforts were sufficient for them to pass the module. The participants exhibited further risk-taking behaviour by breaking the rules of the game, specifically the ruling on how communication was to take place. The reasons offered by the participants for breaking these rules were their need to communicate feelings of incompetence and stress, their need for immediate feedback and support, and their need to give support.

As time went by, and pressure increased with regard to deadlines and assignments, the issue of 'surviving' the *CyberSurfiver* module became priority. The participants realised that they were all experiencing the same hardships, which made them feel closer to one another. This could be seen in the statements of participants: one participant stated that he realised he was not struggling alone, and another participant indicated that, after the module was completed, she missed the interaction she had with her peers when they were online in the middle of the night.

Many of the participants used emoticons to express emotion and to emphasise the messages that they wanted to convey. Some participants used humour as a coping mechanism and as an antidote to anxiety and stress.

Realising that they lacked knowledge and skills with regard to the requirements for the module, some participants took extra courses that, at that stage, were not indicated as a requirement for the MEd (CAE) curriculum. Three of the participants took an extra course together, which may have been a way to ensure that they could support each other, as well as not feeling embarrassed by their need for extra tuition. However, it could simply have been a rational solution to the problem, ensuring the successful completion of the module.

The participants also indicated that they had to make lifestyle changes which included working on the module when their families were sleeping and adjusting their own sleeping patterns to be able to accommodate their families and their studies. The participants indicated that they experienced physical and mental exhaustion. They handled the situation by employing self-talk and personal motivation as coping mechanisms.

7.3.2 Why do online students ask for help?

The participants asked for help because they experienced feelings of anxiety, uncertainty and alienation while, at the beginning of the module, engaging in asynchronous communication via e-mail. It appeared that this was the period when the less skilled participants tended to work in isolation. The participants complained that the e-mails were too short and to the point, very much like sending a text message or SMS. They struggled with nearing deadlines and became desperate. This resulted in them engaging in face-to-face communication, which was against the rules of the game. As they realised that they had common problems, it became more acceptable to expose their inabilities and lack of knowledge to their peers. Failing to comply with the requirements of the module, and the role they played professionally and socially, became less important.

When the synchronous tool *Interwise* was introduced, some participants immediately made use of synchronous communication to request assistance. While this synchronous tool allowed participants to ask for assistance, it immediately exposed their lack of skills. However, it also ensured that they received immediate feedback. It demonstrated the participants' desire to be successful. The desire to succeed is related to self-image, as well as social image. By acknowledging their own incapabilities and requesting assistance, the participants demonstrated that they had developed affectively.

Participants asked for help when they:

- Could not find information posted by the lecturer;
- Did not know where they fitted into a group;
- Were struggling to master the technological/software requirements needed for the completion of assignments;
- Wanted to do something to improve their own knowledge and skills even if it was not needed for marks or the completion of an assignment;
- Struggled to build their personal Web sites;
- Did not know how to perform an FTP action;
- Could not get hold of their peers online;
- Wanted to know how to access the *Yahoo! Groups* Web site created for them;
- Wanted to know how to submit assignments.

7.3.3 Why do online students offer help to their peers?

The first and foremost reason for students to offer help to their peers in the same group would probably be feelings of altruism. Participants offered help to their peers to ensure that the group assignments would be successfully completed and by doing so, the marks for the group and the individual assignments were influenced positively. Close bonds developed between some members of the groups, which, once again, increased their willingness to render assistance. The groups experienced group dynamics that are normally associated with groups. Participants who were most knowledgeable before the onset of the *CyberSurfiver* module offered the most assistance.

Assistance rendered to other groups resulted from friendships between individuals, which were established before the *CyberSurfiver* module commenced. This type of assistance was given *'under the table'*, implying feelings of 'treachery' which should be kept quiet. It was more important to participants to be a 'good friend' than to adhere to the rules of the game. Helping others often increases the self-image of the helper.

Participants who rendered assistance to others were perceived as having more status in their groups. They were, for example, addressed as *'boffins'*. This could have contributed to an increase in their self-esteem and self-image. These helpers received the authority to 'take charge' and structure the interaction of group members so that deadlines would be met and assignments completed, leading to the positive self-image of all the group members and feelings of satisfaction and accomplishment.

7.3.4 What are the principal causes of motivation and frustration?

7.3.4.1 Motivation

Most participants were motivated to stay in the game owing to the support that they received from other tribe members. Some individuals were motivated by their desire to do well. Participants expressed the opinion that synchronous communication by means of *Yahoo! Messenger* did improve the team efforts. The introduction of the students to *Interwise* did not only contribute to the dynamics of the group, but also motivated the students to further explore online communication. The fact that participants could hear each other changed their perception that online communication

was 'lifeless'. It became an enjoyable experience, which played a role in their continuous attempts to persevere and solve problems.

Small achievements served as internal motivation. Feedback received from friends and family served as external motivation. The participants indicated that it was important to them to uphold their social image and comply with the expectations of society with regard to people who were furthering their studies. They also indicated that they wanted to fulfil their functions as role models within their professions.

7.3.4.2 Frustration

Participants' reasons for being frustrated varied from being unsure of what was expected of them, being faced with time restrictions and feeling incompetent when tribal assignments had to be completed.

The limited English skills of some of the participants made it difficult for them to communicate or progress academically. They found the presentation of the course in English as challenging and functioned at a lower cognitive level. Some participants felt that they could not clearly express themselves by means of asynchronous communication, especially when emotions were involved. They were of the opinion that e-mail allowed the use of emoticons and words only, that it was indirect and clinical, and that it did not allow for spontaneous reactions. They also found it cognitively taxing to convey a message in such a manner that it would not be interpreted other than intended.

The lack of immediate feedback in asynchronous communication, from either the peers or the lecturer, proved to be very frustrating to some participants. The frustration was aggravated by the participants' working online at different times of the day and night. Answers to problems were often found through individual trial and error attempts rather than through group support.

The large number of e-mail messages also proved to be a frustration for some participants. The result of this was that participants read e-mails selectively and probably skipped important information sent to them by their peers and/or the lecturer of the module.

Attempts by the lecturer to stimulate discussion and encourage e-communication frustrated some participants. Their reactions seemed to be related to work overload and time constraints. This led to some participants ignoring or selectively answering the questions the lecturer posed to them from time to time. One participant mentioned that the frustration experienced was the result of feelings of incompetence, and of their feeling exposed.

Some participants, especially those who had high performance standards, experienced frustration with the incompetence or lack of participation of 'weaker' group members. The 'stronger' members felt that their progress was inhibited to a certain extent.

7.3.5 What is the nature of the cooperation between group members?

Throughout the module, participants experienced spontaneous support from group members and members of other groups. Despite the late hours and the difficulties associated with asynchronous communication, participants would, in the middle of the night and early mornings, complain to each other about being tired, discuss what still needed to be done and encourage each other. Congratulations and encouragements were extended during formal and informal communications. The synchronous discussion tool *Yahoo! Messenger* specifically enabled more spontaneous support, which influenced the group dynamics and motivated the participants. The affective nature of support correlates to the findings of a study done by Talay-Ongan (2004), who states:

> *'We found that attending to the emotional agenda, the underbelly of all human pursuits, had a facilitative effect as much for the students as for the teachers. A climate of high intellectual demand coupled with high emotional and communicative support appeared to be a winning formula.'*

Participants also requested and offered support on technical issues. Some received support on how to FTP or change a picture on their site. Others were informed of where to find free software to download. Some participants were given support without asking for it, for example when it was noticed that a participant lacked certain information. It is therefore evident that the participants supported each other on both academic (technical) and emotional level, in a spirit of camaraderie.

7.3.6 How do the affective experiences of students contribute to the successful completion of an online course?

It became evident that one of the requirements for the completion of an online course is the creation of a safe learning environment. A safe learning environment is one where students are encouraged to express emotions and share personal learning experiences (Talay-Ongan 2004). A safe learning environment however also includes proper and sufficient guidance from the lecturer. Such an environment would necessarily include accessibility of the lecturer as well as optimal support from the lecturer. The support from the lecturer will include information and advice about technology and software, but to name a few. In a safe learning environment the lecturer will also allow and encourage students to support each other.

In this study, support was evident when students were congratulated on their good performance and when personal messages were sent. Positive experiences such as interaction, interdependence, communication, support, a feeling of belonging, and teamwork played a role in the successful completion of the module. Attaining the set outcomes and experiencing feelings of pride increased the probability of staying on the course.

Some participants' internal drive overshadowed any negative experiences they had. Some participants wanted to do well by putting in extra efforts to meet the task requirements. It is thus clear that the participants achieved success because they had the desire to succeed. Personal characteristics such as determination and perseverance also led to success. All these aspects relate to inner drive, self-image and self-motivation. Participants noted that it was not worth quitting after working so hard and achieving so much. They thus decided to remain on the course due to their positive affective experiences, and despite their negative affective experiences.

7.3.7 What could make a student drop off a course regardless of volition?

As mentioned in Chapter 1, this study excluded an investigation of the reasons students quit online courses. The topic of attrition rates is addressed by many authors, including Diaz (2002), Carr (2000), Terry (2001) and Martinez (2003). Because this study specifically addresses affective concerns, and the seven students who quit the course did so before the tribal module was in full operation, the focus is

placed on factors that influence quitting while the student still has a strong desire to complete it. In this study, no participants discontinued the *CyberSurfiver* module after the first two weeks.

In this study, the participants' workload and the resulting time restrictions affected their capacity to communicate and commit themselves to the game, as well as their ability to complete assignments for the *CyberSurfiver* game. It can be reasoned that, if the duration of the module was longer than six weeks, finances due to Internet access would probably be a determining factor in students quitting the course, or limiting their participation.

The rules of the game can also affect attrition rates. Rules, such as no face-to-face communication, compulsory voting off of peers and having to do all individual and group assignments, can seriously affect attrition. In this study, the students were not punished for not complying with all the rules and they were therefore willing to take risks. Being able to take risks helped the students cope as they felt they had some control over the situation. Less competent participants would be more affected by a no-online communication rule. The synchronous nature of the communication tools probably favoured attrition, as the nature of the game, which required of participants to attain various goals during the game, necessitated regular communication.

As was mentioned before (Section 6.2.6 in Chapter 6), a parallel course was presented at the same time as the *CyberSurfiver* module, which placed undue demands on the time and abilities of the students. The tempo of the game was also very fast, and a number of assignments had to be completed during the six weeks that the game was played.

7.4 Reflections

In this section, I provide an overview of my own affective experiences during the study. It was a gratifying experience to work with two other doctoral students who investigated related topics. This countered feelings of isolation and uncertainty, which can be experienced by doctoral students who enter a new and higher academic level. Though the different studies were not completed and submitted at the same time, the researchers could offer each other valuable support through discussions of the research methodology used, the problems encountered and the presentation of the data and the findings. It is therefore recommended that doctoral students are paired

and assigned to the same PhD promoters, even if they are not involved in collaborative research.

7.4.1 Methodological reflection

The study focused on the identification and interpretation of feelings that students experienced in an online course. This research is significant, as experience has taught that the affective experiences of online students did not receive adequate attention from lecturers. Though it was found that many studies were done from the perspective of the lecturer, those were mainly based on the affective development and not on the affective experiences of online students.

The research design of this study was not as straightforward as one would expect. At first, it was thought that it would be easy to interpret the experiences of the participants by employing the hermeneutic phenomenology design. However, it was soon realised that other designs for this study had to be explored. It was also realised that using a hybrid design proved to be a huge challenge and that it was probably the reason why some researchers refrain from studying the affective experiences of online (or any other) students or why researchers use questionnaires for collecting data instead of doing qualitative research.

I believe that the objectives of the study were attained. The categories of affective experiences, specifically described in Chapter 4, were not found in existing literature consulted for this study. However, it was found that it was possible to assess the participants' affective development by not only using Krathwohl's Taxonomy, but also by applying Kort and Reilly's (2002a; 2002b) learning cycle model. It was discovered that, according to Kort and Reilly's model, the affective experiences of the participants in the *CyberSurfiver* model were in line with general affective development.

During the six weeks of the game I had no contact with the lecturer or the participants of the *CyberSurfiver* module. I was only present at the introductory session, where the module was introduced by the lecturer, and at the reflection session on completion of the module, during which no conversations took place between the participants and myself. I only acted as an observer. I received all the e-mail messages that the lecturer and participants sent to each other as she was online for most of the day during the six weeks and was able to read the e-mails in order to get a sense of the participants' feelings and experiences. During the observing of the *CyberSurfiver* online communication, I did not realise that a developmental pattern would emerge

during the data analysis. It was interesting to find that, though the feelings experienced by the participants seemed to present themselves in a chaotic and unstructured manner, they did follow a comprehensible pattern.

It was realised, during the data interpretation phase, that it would have been useful to utilise a questionnaire to probe the expectations of the participants before they embarked on the module. Although it was not an objective of this study to do comparisons, it would have been informative to see whether the feelings experienced by the participants during the module, were related to their feelings before they started with it.

The findings of this study cannot serve as an ultimate guide for lecturers who plan and facilitate online learning courses, as the *CyberSurfiver* module and its participants were unique. The explanation of the affective development process, the categories of experiences, as well as the inhibiting factors may serve as guidelines for lecturers who want to plan similar collaborative online learning projects. It may very well serve as inspiration or stimulation for prospective researchers on affective experiences in learning situations.

7.4.2 Substantive reflection

The importance of considering not only cognitive and technological issues, but also affective factors in online learning, has been addressed by many educators and educational psychologists, such as Adkins (2004); Bastable (2003); Huitt (1999a); Lee *et al.* (2004); Murray (2002) and Van der Horst and McDonald (2001). It is also the opinion of Salovey (1997:195) that the '*integration of cognition and emotion has significant implications for education*', which is applicable not only to face-to-face education, but also online teaching and learning.

Eisenberg (2002:1) and Adkins (2004) note that little attention is paid to studying the affective and social components of education. However, single studies were reported in 2003 and 2004 that addressed these issues. It would appear that the limited research done on affective factors in online learning was also important to this small number of educators. Articles published by Gabriel (2004), Talay-Ongan (2004), Picard *et al.* (2004) and Vonderwell (2003) addressed similar research as conducted in this study.

Due to limited literature applicable to the feelings experienced by the *CyberSurfiver* participants, the researcher had to rely on literature not necessarily related to affective factors, but to other issues concerned with groups, communication, and interaction, such as that of:

- Atherton (2003), on group development;
- Buher and Walbert (2004), on small groups;
- Larson and Keiper (2002), on discussions; and
- McNamara (1999), on conflict management in groups.

These articles did not subtract from the value of the findings, as they were relevant and contributed to the discussion of the findings.

The quotes presented in this study show that it is necessary to consider the feelings and experiences of students in an online learning environment. The two focus group interviews did not provide enough opportunity to the participants to adequately verbalise their feelings and experiences. It was suggested that another focus group interview was needed for them to express their opinions and feelings more substantively. The intensity of student involvement and activity in an online course is very high and the novice online lecturer may underestimate the influence of the affective experiences of their students.

By reading through the statements made by the participants, it was realised that if online students were provided with an opportunity to verbalise the learning and personal difficulties they experience during an online course, and they know their opinions are considered, it would make the online experience affectively less frightening and overwhelming.

It is therefore important that lecturers should consider the online student as a holistic human being, and plan for online learning events and student-lecturer interaction, to accommodate the holistic nature of the student.

7.4.3 Study-specific reflection

As research on affective factors in online learning proved to be limited, it is believed that the structured identification of categories of the experiences of the participants presented in this study may serve as initiators for other studies of this nature. It may

even be possible to develop a type of taxonomy for the affective experiences of online learners.

The description of altruistic and individualistic behaviour patterns based on affective experiences, as discussed in Chapter 4, is unique, and may be of value for lecturers who plan collaborative online courses. The description of these aspects, as well as the aspects with regard to communication and internal drive (and value system), as being curative in nature, promotes the view of how complex and intense the affective experiences and coping mechanisms of online students are. It was evident that online learners will engage in risk-taking behaviour to ensure that they are successful and perceived as being successful.

The risk-taking behaviour was justified by the fact that the participants experienced themselves as being in the same situation (which they were), regardless of how important or insignificant their contributions to the group assignments were. They exhibited interest in each other and used personal communication to congratulate and encourage each other, even when achievements were small.

The various aspects related to communication, such as loneliness and language difficulty, are discussed as separate entities in other studies. This study provides a cluster of all the factors involved in communication in online courses, such as loneliness, asynchronous and synchronous communication, language issues, sharing of similar emotions, and the difficulty of coping with large numbers of e-mail messages.

No online learning study was found where a comparison of the affective development of participants was done according to Krathwohl's Taxonomy or where Kort and Reilly's (2002a; 2002b) learning cycle model was applied. It can therefore be assumed that this is a unique feature of this study. Other researchers may want to employ the model as part of their research or take it into consideration when planning and facilitating online learning.

This complex nature of online learning experiences is also evident in the explanations as to why online students would ask for help, which was the second sub-question of this study. Online students can experience feelings of desperation at the same time that they experience high volition, which propel them to suppress their feelings of fear and embarrassment at their incompetence, and ask for help. At the same time, other students experience positive feelings because they know how to approach the assignments they have to do. In this study, the division of the participants into

groups of mixed abilities, in terms of Internet skills and knowledge, gave the stronger participants more status.

The value of face-to-face interaction, and telephone conversations as part of online learning, is clearly illustrated in this study. The participants perceived the ability to hear each other's voices, by means of hardware and software that allow synchronous online communication, as valuable. This is not always possible as the nature of online courses differ, but in this case it increased the motivation of the participants and allowed them to feel part of a group that had to attain a common goal, instead of feeling like adversaries who were competing for a prize.

7.5 Recommendations for practice

The recommendations are mostly applicable to situations where courses or modules, similar to the *CyberSurfiver*, are planned. As this study was conducted in a unique situation with a unique module and unique participants, it cannot be assumed that the recommendations are applicable to all online courses or modules. It would be the prerogative of the respective lecturer, who plans the introduction of an online course, to extrapolate the findings of this study to that specific course.

It is of essence that lecturers inform students, who want to do an online course, with regard to every aspect of the course. This would include information about hardware and software requirements, as well as information about the required skills and knowledge for attaining the outcomes of the course.

Students should not embark on an online course without having a computer or an Internet connection at home. This requirement is especially essential when the course content is handled through computer-assisted education.

The requirements or prerequisites for an online course should be communicated to students before they commence with an online course. This should be done in order to avoid a situation where a student pays the course fees, starts with assignments and then finds out that s/he does not have the correct equipment or skills, and therefore does not comply with the requirements. The disappointment and resulted underperformance might affect the future personal development efforts of the individual.

Students should be informed not only of the hardware requirements of a course, but also of the required computer literacy level/s, such as the ability to use certain software or do programming, even when it is relatively basic.

Lecturers cannot assume that, because students apply for a course, they know all the requirements. While the learner might be an adult and has the responsibility to seek relevant information, the lecturer is still the source of information. Many students doing online courses are people who have not studied for a long time and are new to the online learning environment. It is therefore recommended that information provided for prospective students be compiled as broadly as possible. Information about where and how the student can do a short course, in order to close gaps in existing knowledge and skills, should also be provided. Potential students, who are able to use word processing software, communicate by means of e-mail and know how to access and use the Internet, may perceive themselves as highly computer literate and skilled enough to do an online course.

If possible, an estimated time that students will spend online must be provided. This may sound impossible, but if lecturers have presented the same type of module before, they will be able to provide students with an estimated time frame. Students should also be informed that they should budget for Internet expenditure according to the estimated time they will spend online. This will prevent the student from being faced with additional expenses, and additional psychological stress, at a time when they no longer have an opportunity to discontinue the course as they already have paid the necessary course fees. Adult online learners normally have other responsibilities such as being employed and having families to attend to as well.

Lecturers must plan for a psychologically safe environment where students can overcome feelings of disconnection and isolation. A safe environment must include ample communication opportunities for the student, not only with the lecturer, but also with peers. If financially viable, opportunities should be created for students to communicate synchronously and, if possible, verbally. The rule of no face-to-face or telephonic communication with the lecturer or peers should not be applicable to an online course where students are not well versed in the use of computers and the applicable software programmes. Students often have to cope with the anxiety of doing an online course and should not be excluded from face-to-face or verbal communication, which might provide them with the necessary support. Students should be encouraged to communicate in any possible manner when doing collaborative assignments. It is therefore suggested that lecturers employ educational

strategies, such as collaborative learning, to increase the positive and decrease the negative emotions of students.

It is recommended that online lecturers encourage online students to express their feelings, to the group or to the lecturer, by ensuring them that they will be supported and not ridiculed. The students who participated in the *CyberSurfiver* game indicated that their personal image, portrayed to family and peers, was important to them. Lectures should appreciate the concern that adult learners have with maintaining a good image.

A short introductory online session, or even a pre-test on content pertaining to the course, could be planned to allow students to establish whether they comply with the requirements of the course. This will allow the students to establish their competence and knowledge levels, and improve their chances of success. It will also avoid unnecessary anxiety and uncertainty.

Although an investigation of ergonomic and physical factors in online learning was not part of this study, it should be mentioned that physical exhaustion influences the emotional well being of people. Online students should be informed of how to plan their workstations or organise their desks at home to allow them to experience as little physical discomfort as possible whilst they are online or doing assignments.

7.6 Recommendations for further research

It is apparent that limited research had been done on the affective experiences of students in online learning and researchers are therefore encouraged to consider doing research of this nature.

As the research of this study pertained to a specific case, it is suggested that more studies of a similar nature are undertaken in different online settings. It would be interesting to see if a similar categorisation of feelings and affective development could be made. Lecturers who want to do research on the affective experiences of online students may consider using Kort and Reilly's learning cycle model to assess students' emotions (Kort & Reilly 2002a; 2002b), since it served an insightful purpose in this study.

It would also be useful to investigate the correlation between the development of the cognitive, technological (psychomotor) and affective domains, and not only the cognitive and technological domains. It is suggested from the data in this study that there is a discrepancy between what facilitators/lecturers think students know, expect and experience during an online course, and what students who register for an online course really know, expect, and experience. Research in this area would be insightful.

7.7 Closure

This study was unique in the sense that it focused on the affective experiences of online students only. It investigated specifically the meaning that participants gave to their feelings. The findings of this study emphasise the importance of the recognition of the holistic nature of the online student and her/his experiences, which imply that affective development cannot be separated from cognitive and psychomotor development.

List of Sources

AASE, S. 2000. Online learning goes the distance. *Computer User.com* [Online], October. Available: http://www.computeruser.com/articles/1910,1,1,1,1001,00.html. [Accessed: 9 October 2004].

AAUW. 2001. See AMERICAN ASSOCIATION OF UNIVERSITY WOMEN (AAUW).

ABRAHAMSON, CE. 1998. Issues in interactive communication in distance education. *College Student Journal*, 32(1): 33–43.

ADAMS, M, MARSHALL, S & CAMERON, A. 1999. *Strategic academic program development: Heads of schools' perceptions of the role of professional development.* HERDSA Annual International Conference, Melbourne, 12 -15 July.

ADENDORFF, DE. 2004. An investigation into the roles and competencies of an online facilitator. Unpublished PhD thesis, University of Pretoria, Pretoria, South Africa. Available: http://upetd.up.ac.za/thesis/available/etd-08232004-071632/. [Accessed: 10 October 2004].

ADKINS, SS. 2004. Beneath the tip of the iceberg: Technology plumbs the affective learning domain. *T+D Magazine* [Online], February. Available: http://www.learningcircuits.org/2004/feb2004/adkins.htm. [Accessed: 9 July 2004].

ALAVI, M. 1994. Computer mediated collaborative learning: An empirical evaluation. *MIS Quarterly*, 18(2):159-74.

ALTRUISTS INTERNATIONAL. [Sa]. *Pioneering altruism as a viable social norm* [Online]. Available: http://www.altruists.org/about/altruism/. [Accessed: 8 December 2004].

AMERICAN ASSOCIATION OF UNIVERSITY WOMEN (AAUW). 2001. *The third shift: Women learning online* [Online]. Available: http://www.aauw.org/research/3rdshift.cfm. [Accessed: 1 January 2005].

ANDERSON, T. 2002. An updated and theoretical rationale for interaction. *ITForum* paper #63. Available: http://it.coe.uga.edu/itforum/paper63/paper63.htm. [Accessed: 10 December 2004].

ANDERSON, KN & ANDERSON, LE. 1994. *Mosby's Pocket Dictionary of Medicine, Nursing & Allied Health.* 2nd Edition. St Louis, Missouri: Mosby.

ANSON, CM & DANNELS, DP. [Sa]. *Workshop: Managing writing groups.* Available: http://www2.chass.ncsu.edu/CWSP/orphan_files/w_group.html [Accessed: 20 October 2004].

ARAGON, SR. 2003. Creating social presence in online environments. *New directions for adult and continuing education* [Online], 100 (Winter): 57-68. Available: http://wilsontxt.hwwilson.com/pdfhtml/01517/AXVUK/USJ.htm. [Accessed: 5 December 2004).

ARBAUGH, JB 2000. Virtual classroom characteristics and student satisfaction with Internet-based MBA courses. *Journal of Management Education,* 24: 32-54.

ASTLEITNER, H & LEUTNER, D. 2004. Designing instructional technology from an emotional perspective. *Journal of Educational Multimedia and Hypermedia,* 13(1): 3-21.

ATACK, L & RANKIN, J. 2002. A descriptive study of registered nurses' experiences with web-based learning. *Journal of Advanced Nursing, 40*: 457-65.

ATHERTON, JS. 2003. *Learning and teaching: Group development* [Online]. Available: http://www.dmu.ac.uk/~jamesa/teaching/group_development.htm. [Accessed: 14 July 2004].

AUMUELLER, DJ. 2002. *Mass media and society - Essay one* [Online]. University of Leeds – Institute of Communications Studies, December. Available: http://the.navigable.info/pub/media-use_epistemology.pdf. [Accessed: 1 October 2004].

BACKROAD CONNECTIONS Pty Ltd. 2002. Effective Online Facilitation (Version 2.00), Australian Flexible Learning Framework. *Quick Guides Series* [Online], Australian National Training Authority. Available: http://flexiblelearning.net.au/guides/facilitation.html. [Accessed: 6 October 2004].

BALL, P. 2003. Accents have advantages: A foreign tongue can be easier to understand in the mouth of a non-native. *BioEd Online*, September 8. Available:

http://www.bioedonline.org/news/news.cfm?art=453. [Accessed: 19 December 2004].

BANDURA, A. 1994. Self-efficacy, in *Encyclopedia of human behavior* 4, edited by VS Ramachaudran. New York: Academic Press: 71-81. (Reprinted 1998 in *Encyclopedia of mental health,* edited by H Friedman. San Diego: Academic Press). Available: http://www.emory.edu/EDUCATION/mfp/BanEncy.html. [Accessed: 27 December 2004].

BASTABLE, SB. 2003. *Nurse as educator: Principles of teaching and learning for nursing practice.* 2nd Edition. Missisauga, Ontario: Jones and Bartlet.

BAUMAN, M. 1997. *Online learning communities* [Online]. Available: http://leahi.kcc.edu/org/tcc_conf97/pres/bauman.html#STUDIFF. [Accessed: 9 July 2004].

BEAUDOIN, MF. 2002. Learning or lurking? Tracking the ''invisible'' online student. *Internet and Higher Education*, 5:147–55.

BERGE, ZL & HUANG, Y. 2004. A model for sustainable student retention: A holistic perspective on the student dropout problem with special attention to e-learning. *DEOSNEWS* [Online], 13(5), May. Available: http://www.ed.psu.edu/acsde/deos/deosnews/deosnews13_5.pdf. [Accessed: 3 October 2004].

BIBEAU, S. 2001. Social presence, isolation, and connectedness in online teaching and learning: From the literature to real life. *Journal of Instruction Delivery Systems*, 15(3): 35-9.

BOETTCHER, S. 1999. *What types of virtual learning communities can I build and what tools are available?* [Online]. Available: http://www.fullcirc.com/community/communitytypes.htm. [Accessed: 10 October 2004].

BOGDAN, RC & BIKLEN, SK. 1992. *Qualitative research for education: An introduction to theory and methods.* Boston: Allyn & Bacon.

BONWELL, CC & EISON, JA. 1991. *Active learning: Creating excitement in the classroom*. Washington, DC: George Washington University.

BRADSHAW, S. 2002. *A social constructivist learning approach: The value of collaborative learning projects as educational methodologies* [Online]. Available: http://www.cs.tcd.ie/Sara.Bradshaw/portfolio/research/respaper.doc. [Accessed: 1 October 2004].

BREAKWELL, GM, HAMMOND, S & FIVE-SHAW, C. 1995. *Research methods in psychology.* London: Sage.

BRINK, HI. 1996. *Fundamentals of research methodology for health professionals.* Cape Town: Juta.

BROOKFIELD, SD. 1986. *Understanding and facilitating adult learning*. San Francisco, CA: Jossey-Bass.

BROOKS, JG & BROOKS, MG. 1993. *The case for constructivist classrooms*. Alexandria, VA: ASCD.

BUHER, G & WALBERT, D. 2004. *Making small groups work* [Online]. Available: http://www.learnnc.org/index.nsf/doc/buher-classman0701?OpenDocument. [Accessed: 22 September 2004].

BURGE, E. 1994. Learning in computer conferenced contexts: The learners' perspective. *Journal of Distance Education/ Revue del'enseignement á distance* [Online], 9(1): 19-43. Available: http://cade.athabasecau.ca/vol9.1/burge/html. [Accessed: 7 December 2004].

BURNS, N & GROVE, SK. 1997. *The practice of nursing research: Conduct, critique and utilization.* 3rd Edition. Philadelphia, USA: Saunders.

CALDERONE, AB. 1994. Computer assisted instruction: Learning, attitude, and models of instruction. *Computers in Nursing,* 12(3): 164-70.

CAMERON, N. 2000. Small groups. *UTS Newsletter*, 9(1).

CANTRELL, DC. 2001. *Alternative paradigms in environmental educational research: The interpretive perspective* [Online]. Available:

http://www.edu.eluth.ca/ciccte/naceer.pgs/alternate/pubfiles/08.Cantrell.fin.htm. [Accessed: 22 February 2003].

CARR, S. 2000. As distance education comes of age, the challenge is keeping the students. *Chronicle of Higher Education* [Online], A39, February. Available: http://www.ghee.org/Resources/Info%20Tech/Infotech-chron1-articles/Infotech-chron-2-11-00-carr.htm. [Accessed: 10 October 2004].

CARR, WD & KEMMIS, S. 1986. *Becoming critical: Education, knowledge and action research.* London: The Falmer Press.

CATHCART, RS, SAMOVAR, LA & HENMAN, LD. (eds.). 1996. *Small group communication: Teaching & practice* [Online]. Boston: McGraw-Hill. Available: http://highered.mcgraw-hill.com/sites/dl/free/0072843470/87960/Part05.doc. [Accessed: 2 September 2004].

CHAMANE, NJ & KORTENBOUT. 1996. Focus group interview as a data-gathering tool: Its application to nurses' understanding of HIV infection and AIDS. *Curationis,* 19(4): 23-25.

CHAPMAN, D. 1998. *The death of distance education - Long live distributive learning* [Online]. Available: http://www.unesco.org/education/educprog/lwf/doc/portfolio/opinion18.htm. [Accessed: 10 August 2004].

CHYUNG, SY. 2001. Improve the motivational appeal of online instruction for adult learners: What's in it for me? *American Journal of Distance Education* [Online], 15(3): 36-49. Available: http://coen.boisestate.edu/ychyung/researchpaper.htm. [Accessed: 3 November 2004].

CLANDININ, DJ & CONNELLY, FM. 1998. In *Handbook of qualitative research,* edited by DENZIN, NK. & LINCOLN, YS. Thousand Oaks, CA: Sage.

CLARK, RR. 1994. Media will never influence learning. *Educational Technology Research and Development,* 42(2): 21-2.

CLOETE, LM. 2001. The education and training of cataloguers: A training resource programme [Online]. PhD (Information Science) thesis, University of Pretoria,

Pretoria. Available: hagar.up.ac.za/catts/learner/2001/cloete_l/lcloetedphil.zip. [Accessed: 18 September 2004].

COHEN, MZ, KAHN, DL & STEEVES, RH. 2000. *Hermeneutic phenomenological research: A practical guide for nurse researchers*. California, USA: Sage.

COLLIER'S DICTIONARY. 1977. New York: MacMillan.

COLLINS CONCISE DICTIONARY. 2001. 5th Edition. Glasgow: HarperCollins.

CONRAD, DLE. 2002. Community, social presence and engagement in online learning. PhD thesis, University of Alberta, Edmonton, Alberta.

CONROY, SA. 2003. A pathway for interpretive phenomenology. *International Journal of Qualitative Methods* [Online], 2(3): Article 4. Available: http://www.ualberta.ca/~iiqm/backissues/2_3final/html/conroy.pdf. [Accessed: 11 July 2004].

COUSIN, G & DAVIDSON, Q. [Sa]. *The affective domain and IT teaching* [Website of Coventry University] [Online]. Available: http://www.coventry.ac.uk/ched/research/casestudies/gcadpub1.htm. [Accessed: 16 April 2003].

CRESWELL, JW. 1998. *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, California, USA: Sage.

CRONJÉ, JC. 1997. Education for Technology, Technology for Education. *University of Pretoria Technology Plan*, *Appendix B* [Online]. Available: http://hagar.up.ac.za/catts/abc/Techplan97.html. [Accessed: 4 March 2004].

CRONJÉ, JC. 1996. *Interactive Internet: Using the Internet to facilitate co-operative distance learning* [Online]. Available: http://hagar.up.ac.za/catts/abc/rbo96.html. [Accessed: 23 February 2004].

CROTTY, T. 1995. Constructivist theory unites distance learning and teacher education. *Education Journal* [Online], 9(4): j12-j16. Available: http://edie.cprost.sfu.ca/it/constructivist-learning. [Accessed: 6 November 2004].

CURTIS, DD & LAWSON, MJ. 2001. Exploring collaborative online learning. *Journal of Asynchronous Learning Networks,* 5(1): 21-34.

DANCHAK, MM. 2003. *Bringing affective behaviour to e-learning* [Online]. Available: http://ts.mivu.org/?show=article&id=962. [Accessed: 9 July 2004].

DANGEL, HL. [Sa]. *Rethinking teaching about teaching: A rationale for web-based technology*. [Website of Georgia State University] [Online]. Available: http://education.gsu.edu/hdangel/rethinking_teaching_about_teachi.htm. [Accessed: 13 May 2004].

DENZIN, NK & LINCOLN, YS. 2000. *Handbook of qualitative research*. 2nd Edition. London: Sage.

DE VERNEIL, M & BERGE, ZL. 2000. Going Online: Guidelines for Faculty in Higher Education. *International Journal of Educational Telecommunications*, 6: 227-42.

DE VOS, AS, STRYDOM, H, FOUCHÉ, CB & DELPORT, CSL. 2002. Research at grass roots. 2nd Edition. Pretoria: Van Schaik.

DEWAR, T. & WHITTINGTON, D. 2000. Teaching online: A new skill set. *Journal of Educational Computing Research,* 23(4): 415-33.

DeWERT, MH, BABINSKI, LM & JONES, BD. 2003. Safe passages: Providing online support to beginning teachers. *Journal of Teacher Education,* 54(4), September/October: 311-21.

DEWEY, J. 1915. *German philosophy and politics*. New York: Henry Holt & Co.

DIAZ, DP. 2002. Online drop rates revisited. *The Technology Source* [Online], May/June. Available: http://ts.mivu.org/default.asp?show=article&id=981. [Accessed: 1 October 2004].

Dictionary.com. 2004. [Online]. Available: http://dictionary.reference.com/ [Accessed: 20 November 2004].

DIX, A, RAMDUNY, D. & WILKINSON, J. [Sa]. *Long-term interaction: Learning the 4 R's* [Online]. Available:

http://www.comp.lancs.ac.uk/computing/users/dixa/papers/fourRs/. [Accessed: 1 October 2004].

DODGE, B. [Sa]. *Active learning on the Web* [Online]. Available: http://edweb.sdsu.edu/people/bdodge/Active/ActiveLearning.html. [Accessed: 9 September 2004].

DOSHIER, S. 2000. *Report on learning: John Dewey and constructivism in adult learning* [Online]. Available: http://dana.ucc.nau.edu/~sad24/paper.htm. [Accessed: 1 October 2004].

EISENBERG, M. 2002. Output devices, computation, and the future of mathematical crafts. *International Journal of Computers for Mathematical Learning*, 7(1): 1-44.

FASTRAK CONSULTING LTD. 1999. *Measuring learning* [Online]. Available: http://www.fastrak-consulting.co.uk/tactix/Features/evaluate/eval05.htm. [Accessed: 22 February 2003].

FELDER, RM & BRENT, R. 1994. *Cooperative learning in technical courses: Procedures, pitfalls and payoffs* [Online]. Available: http://www.ncsu.edu/felder-public/Papers/Coopreport.html. [Accessed: 23 October 2004].

FERENCE, PR & VOCKELL, EL. 1994. Adult learning characteristics and effective software instruction. *Educational Technology,* 34(6): 25-31.

FERNANDEZ, LM. 1997. Running an effective task group; The five C's. *The New Social Worker* [Online], Winter 4(1). Available: http://www.socialworker.com/home/Feature_Articles/Professional_Development_&_Advancement/Running_An_Effective_Task_Group:_The_Five_C%92s/. [Accessed: 28 December 2004].

FETHERSTON, T. 2001. Pedagogical challenges for the World Wide Web. *Education Technology Review* [Online], 9(1). Available: http://www.aace.org/pubs/etr/fetherston.cfm. [Accessed: 08 July 2004].

FIELD, PA & MORSE, JM. 1985. *Nursing research: The application of qualitative approaches.* London: Chapman & Hall.

FLOWERS, JC & RITZ, JM. 1994. *Cooperative learning in technology education* [Online]. Available: http://teched.vt.edu/vctte/VCTTEMonographs/VCTTEMono13(CoopLearn).html. [Accessed: 20 October 2004].

FORSYTH, I. 1996. *Teaching and learning materials and the Internet*. London: Kogan Page.

FOSNOT, C. 1996. *Constructivism: Theory, perspectives, and practice*. New York: Teachers College Press.

FRANKOLA, K. 2001. Why online learners drop out. *Workforce,* 80: 53-8.

FREIBERG, JH & DRISCOLL, A. 1996. *Universal teaching strategies.* London: Allyn & Bacon.

GABBERT, B, JOHNSON, DW & JOHNSON, RT. 1986. Cooperative learning, group-to-individual transfer, process gain and the acquisition of cognitive reasoning strategies. *Journal of Psychology*, 120(3): 265-278.

GABRIEL, MA. 2004. Learning together: Exploring group interactions online. *Journal Of Distance Education / Revue De L'éducation À Distance* [Online], 19(1): 54-72. Available: http://cade.athabascau.ca/vol19.1/GABRIEL_article.pdf. [Accessed: 27 November 2004].

GAGNON Jr, GW & COLLAY, M. [Sa]. *Constructivist learning design* [Online]. Available: http://www.prainbow.com/cld/cldp.html. [Accessed: 19 September 2004].

GALUSHA, JM. 1997. *Barriers to learning in distance education* [Online]. Available: http://www.infrastruction.com/articles.htm. [Accessed: 3 June 1999].

GARFIELD, J. 1993. Concerns about using small groups. *Journal of Statistics Education* [Online], 1(1). Available: http://www.amstat.org/publications/jse/v1n1/garfield.html. [Accessed: 27 November 2004].

GILLETT, A. 2004. *Using English for academic purposes: A guide for international students* [Online]. Available: http://www.uefap.co.uk/index.htm. [Accessed: 5 December 2004).

GLESNE, C & PESHKIN, A. 1992. *Becoming qualitative researchers: An introduction*. White Plains, NY: Longman.

GRANEHEIM, UH & LUNDMAN, B. 2004. Qualitative content analysis in nursing research: Concepts, procedures, and measures to achieve trustworthiness. *Nurse Education Today,* 24:105-12.

GRAVETT, S. 2001. *Adult learning: Designing and implementing learning events – A dialogic approach.* Pretoria: Van Schaik.

GRAVETT, S & GEYSER, H. 2004. *Teaching and learning in higher education*. Pretoria: Van Schaik.

GREEN, CD. [Sa]. *Classics in the history of psychology* [Online]. Available: http://psychclassics.yorku.ca/Sherif/chap8.htm. [Accessed: 1 January 2005].

GREENHALGH, T & TAYLOR, R. 1997. How to read a paper: Papers that go beyond numbers (qualitative research). *Bio-Medical Journal*, 315: 740-3.

GUNAWARDENA, CN. 1995. Social presence theory and implications for interaction and collaborative learning in computer conferences. *International Journal of Educational Telecommunications*, 1: 147-66.

GUNAWARDENA, CN & ZITTLE, FJ. 1997. Social presence as a predictor of satisfaction within a computer-mediated conferencing environment. *The American Journal of Distance Education,* 11(3), 8-26.

HAMILTON-PENNELL, C. 2002. Getting ahead by getting online: Available any place, any time, web-based continuing education coursework is a viable way for librarians to pursue professional goals. *Library Journal*, 127(19): 32–4.

HANLEY, S. 1994. *On constructivism* [Online]. Available: http://www.inform.umd.edu/UMS+State/UMD-Projects/MCTP/Essays/Constructivism.txt. [Accessed: 8 September 2004].

HARA, N & KLING, R. [Sa]. *Students' frustrations with a Web-based distance education course: A taboo topic in the discourse*. Available: http://www.techconsult.org/STAFFDEVELOP/DISTLEARN/FRUSTRATIONS.htm. [Accessed 5 December 2004].

HARA, N & KLING, R. 2000. Students' distress with a Web-based distance education course: An ethnographic study of participants' experience. *CSI Working Paper* [Online]. Available: http://www.slis.indiana.edu/CSI/WP/wp00-01B.html. [Accessed: 6 March 2003].

HARA, N & KLING, R. 1999. Students' frustrations with a Web-based distance education course. *First Monday* [Online], 4(12). Available: http://firstmonday.org/issues/issue4_12/hara/index.html. [Accessed: 2 October 2004].

HARASIM, LM. 1996. Computer networking for education, in *International Encyclopedia of Educational Technology,* edited by T Plomp and DP Ely. 2nd Edition. Oxford: Pergamon.

HARMON, SW & JONES, MG. 2001. An analysis of situated Web-based instruction. *Educational Media International,* 38(4): 271-80.

HARRIS, C, STRAKER, L, POLLOCK, C & TRINIDAD, S. 2000. *Musculoskeletal outcomes in children using information technology – the need for a specific etiological model* [Online]. Available: http://cyberg.wits.ac.za/cyberg/sessiondocs/physical/child/child1/child1.htm. [Accessed: 27 December 2004].

HEINEMANN, MH. 2003. Teacher-student interaction online and learning in web-based graduate theological education. *Dissertation Abstracts International Section A: Humanities and Social Sciences* [Online], 64(4A): 1189. Available: PsycLIT database. [Accessed: 4 August 2004].

HENNING, E. 2004. *Finding your way in qualitative research*. Pretoria: Van Schaik.

HENZE, N & NEJDL, W. 1998. A Web-based learning environment: Applying constructivist teaching concepts in virtual learning environments, in *The virtual campus: Trends for higher education and training,* edited by F Verdejo & G Davies. [IFIP TC3/WG3.3 & WG3.6 Joint Working Conference on the Virtual Campus: Trends for Higher Education and Training, 27-29 November 1997, Madrid, Spain]. London: Chapman & Hall: 63-77.

HERMAN, A & DOWNIE, J. 1998. *Assessing and evaluating student contribution to electronic discussion* [Online]. Available: http://www.curtin.edu.au/learn/unit/NursingHonours/. [Accessed: 2 June 2003].

HILL, JR & RAVEN A. [Sa]. Online learning communities: If you build them, will they stay? *ITForum Paper #46* [Online]. Available:

http://it.coe.uga.edu/itforum/paper46/paper46.htm. [Accessed: 7 December 2004].

HOLLOWAY, I & WHEELER, S. 2002. *Qualitative research in nurs*ing. 2nd Edition. Oxford, UK: Blackwell.

HOOPER, S & RIEBER, LP. 1995. Teaching with technology, in *Teaching: Theory into practice* [Online], edited by AC Ornstein. Needham Heights, MS: Allyn & Bacon: 154-70. Available: http://www.nowhereroad.com/twt/index.html. [Accessed: 2 June 2003].

HOUGHTON MIFFLIN COLLEGE DIVISION. 1997. Motivation: Excerpted from Chapter 11 of Biehler/Snowman, *Psychology Applied To Teaching*, 8/e, Houghton Mifflin. Available: http://college.hmco.com/education/resources/res_project/students/tc/motivate.html #impact. [Accessed: 27 November 2004].

HUITT, W. 2001. Krathwohl et al.'s taxonomy of the affective domain. *Educational Psychology Interactive: Taxonomy of the Affective Domain* [Online]. Valdosta, GA: Valdosta State University. Available: http://chiron.valdosta.edu/whuitt/col/affsys/affdom.html. [Accessed: 22 February 2003].

HUITT, W. 2000. *Desired student outcomes* [Online]. Valdosta, GA: Valdosta State University. Available: http://chiron.valdosta.edu/whuitt/col/student/desout.html. [Accessed: 22 February 2003].

HUITT, W. 1999a. The affective system. *Educational Psychology Interactive: Taxonomy of the Affective Domain* [Online]. Valdosta, GA: Valdosta State University. Available: http://chiron.valdosta.edu.whuitt/col/affsys/affsys.html. [Accessed: 22 February 2003].

HUITT, W. 1999b. Conation as an important factor of mind. *Educational Psychology Interactive* [Online]. Valdosta, GA: Valdosta State University. Available: http://chiron.valdosta.edu/whuitt/col/regsys/conation.html. [Accessed: 7 January 2005].

ILLINOIS ONLINE NETWORK. 2003. *What makes a successful online student?* [Online]. Available: http://www.ion.illinois.edu/IONresources/onlineLearning/StudentProfile.asp. [Accessed: 2 October 2004].

INSTITUTIONAL RESEARCH AND PLANNING (IRP). 2003. *Annotated bibliography on student retention research* [Online]. Available: http://www.csupomona.edu/~irp/annotatedBibli.htm. [Accessed: 20 September 2004].

ION. 2003. See ILLINOIS ONLINE NETWORK.

JANESICK, VJ. 2000. The choreography of qualitative design, in *Handbook of qualitative research,* edited by NK Denzin & YS Lincoln. 2nd Edition: 379-397. London: Sage.

JOHNSON, DW & JOHNSON, RT. 1991. *Learning together and alone*. New Jersey: Prentice Hall.

JOHNSON, DW & JOHNSON, RT. 1989. *Cooperation and competition: Theory and research.* Edina, MN: Interaction Book Co.

JOHNSON, DW, JOHNSON, RT & SMITH, KA. 1991. *Cooperative learning: Increasing college faculty instructional productivity.* ERIC Clearinghouse on Higher Education, George Washington University, Washington DC.

JONASSEN, D. 1999. Designing constructivist learning environments, in *Instructional-design theories and models (Vol. II. A new paradigm on instructional theory)*, edited by CM Reigeluth. Mahwah, N.J.: Lawrence Erlbaum Associates: 217-39.

JONASSEN, DH. 1991. Evaluating constructivistic learning. *Educational Technology*, 31(10): 28-33.

KEARSLEY, G. 2000. *Androgogy in explorations in learning & instruction: The theory into practice database* [Online]. Available: http://www.hfni.gsehd.gwu.edu/~tip/knowles.html. [Accessed: 2 October 2004].

KELLER, J. 1979. *ARCS model of motivation* [Online]. Available: http://www.ittheory.com/keller1.htm. [Accessed: 6 July 2004].

KHOO, C. [Sa]. *The challenge of developing engaging interactive tertiary online language materials based on instructional design and learning principles* [Online]. Available: http://www.flinders.edu.au/SLC/Khoo.pdf. [Accessed: 27 December 2004].

KING, FB. 2002. A virtual student: Not an ordinary Joe. *Internet and Higher Education* [Online], 5:157–66. Available: http://public-cmaps.coginst.uwf.edu/server/EletromagnetismoUFES/application/pdf/IHEa4.pdf. [Accessed: 10 December 2004].

KLIEMT, H. 1990. Papers on Buchanan and related subjects – Munich (Accedo Verlagsgesellschaft). *Studies in Economics and Social Science* [Online], 1: 72–95. Available: http://www.gmu.edu/jbc/fest/late_entries/Kliemt/KliemtPoB4(72-95).htm. [Accessed: 11 October 2004].

KOOKER, BM, SHOULTZ, J & TROTTER, MF. 1998. Focus groups: A unique approach to curriculum development. *Nursing and Health Care Perspectives,* 19(16): 283-6.

KORT, B & REILLY, R. 2002a. Theories for deep change in affect-sensitive cognitive machines: A constructivist model. *Educational Technology & Society*, 5(4): 56-63.

KORT, B & REILLY, R. 2002b. *Analytical models of emotions, learning and relationships; Toward an affect-sensitive cognitive machine* [Online]. Massachusetts Institute of Technology Media Laboratory. Available: http://vismod.media.mit.edu/tech-reports/TR-548.pdf. [Accessed: 5 September 2004].

KORT, B, REILLY, R & PICARD, RW. 2001. *An affective model of interplay between emotions and learning: Reengineering educational pedagogy - building a learning companion* [Online]. Available: http://affect.media.mit.edu/projectpages/lc/icalt.pdf. [Accessed: 23 December 2004].

KOZIER, B, ERB, G & OLIVIER, R. 1991. *Fundamentals of nursing science: Concepts, process and practice.* California, USA: Addison Wesley.

KOZMA, RB. 1994. Will media influence learning? Reframing the debate. *Educational Technology Research and Development,* 42(2): 7-21.

KOZMA, RB. 1987. The implications of cognitive psychology for computer-based learning tools. *Educational Technology,* 27(11): 20-25.

KRAMARAE, C. 2001. *The third shift: Women learning online* [Online]. 1999-2000 American Association of University Women (AAUW) Educational Foundation Scholar-in-Residence. Available: http://www.uoregon.edu/%7Echeris/third%20shift.pdf. [Accessed: 2 January 2005].

LAIDLAW, LMJ. 1998. *Meeting the training needs of young adults: An investigation into learning preferences, constructivist methodology and multimedia instruction* [Online]. Available: http://hagar.up.ac.za/catts/learner/Laura/essay.html. [Accessed: 7 September 2004].

LARSON, BE & KEIPER, TA. 2002. Classroom discussion and threaded electronic discussion: Learning in two arenas. *Contemporary Issues in Technology and Teacher Education* [Online], *2*(1). Available: http://www.citejournal.org/vol2/iss1/socialstudies/article1.cfm. [Accessed: 30 September 2004].

LASCHTUWKA, B. 2003. *Differences between online students and lecture students* [Online]. Available: http://cbl.fh-hagenberg.at/~cbl01010/docs/paper/different_students.pdf. [Accessed: 7 November 2004].

LAUREL, B. 1991. *Computers as theatre*. Reading, MA: Addison Wesley.

LEARNING with software: Pedagogies and practices project [Online]. 1996. Available: http://www.educationau.edu.au/archives/CP/REFS/reeves_paradigms.htm. [Accessed: 13 August 2004].

LEE, C, ZELEKE, A & MELETIOU-MAVROTHERIS, M. 2004. *A study of affective and metacognitive factors for learning statistics and implications for developing an active learning environment* [Online]. Available: http://www.cst.cmich.edu/users/lee1c/carllee/papers/Study-of-Affective-factors-04.pdf. [Accessed: 9 July 2004].

LEFOE, G, GUNN, C & HEDBERG, J. 2002. Recommendations for teaching in a distributed learning environment: The students' perspective. *Australian Journal of Educational Technology* [Online], 18(1):40-56. Available: http://www.ascilite.org.au/ajet/ajet18/lefoe.html. [Accessed: 27 December 2004].

LINCOLN, YS & GUBA, EG. 1985. *Naturalistic inquiry*. Newbury Park, CA: Sage.

LITTLE GREEK 101: LEARNING NEW TESTAMENT GREEK. [Sa]. *The Greek alphabet* [Online]. Available: http://www.ibiblio.org/koine/greek/lessons/alphabet.html. [Accessed: 9 December 2004].

LOSH, SC. 2003. *Group processes, group cohesion I: An introduction* [Online]. Department of Educational Psychology and Learning Systems, Florida State University. Available: http://edp5285-01.sp03.fsu.edu/Guide5.html. [Accessed: 28 December 2004].

LOUI, MC. 1999. *Fieldwork and cooperative learning in professional ethics* [Online]. Available: http://onlineethics.org/essays/education/loui.html#coop. [Accessed: 27 November 2004].

LOUW, DA & EDWARDS, DJA. 1993. *Psychology: An introduction for students in Southern Africa.* Johannesburg, SA: Lexicon.

LU, M. 1998. English-only movement: Its consequences for the education of language minority children. *ERIC Clearinghouse on Reading, English, and Communication Digest* #139 [Online]. Available: http://www.indiana.edu/~reading/ieo/digests/d139.html. [Accessed: 20 December 2004].

LUKES, S. 1973. *Individualism.* Oxford: Blackwell.

MacGILL, M. 1986. Educational relationships. *Medical Teacher,* 8(2): 149-54.

MacKINTOSH, J. 2000. *Ergonomics resources - for the good of your health* [Online]. Athabasca University. Available: http://ccism.pc.athabascau.ca/html/courses/global/info/ERGO/about.htm. [Accessed: 27 December 2004].

MALONE, TW & LEPPER, MR. 1987. Making learning fun: A taxonomy of intrinsic motivations for learning, in *Aptitude, learning, and instruction* (*Vol. 3. Cognitive and affective process analysis)*, edited by RE Snow & MJ Farr. Hillsdale, NJ: Erlbaum: 223-53.

MARSHALL, C & ROSSMAN, SB. 1999. *Designing qualitative research.* 3rd Edition. London: Sage.

MARTIN, BL. 1989. *A checklist for designing instruction in the affective domain* [Online]. Available: http://plaza.v-wave.com/kegj/mar.html. [Accessed: 26 March 2002].

MARTIN, K. 2000. *Alternative modes of teaching and learning* [Online]. Available: http://www.csd.uwa.edu.au/altmodes/to_delivery/collab_coop.html. [Accessed: 27 November 2004].

MARTIN, E, RAMSDEN, P & BOWDEN, J. 1989. *Students' conceptions of adaptation to higher education*. Paper presented at AARE, University of Adelaide, November. Available: http://www.aare.edu.au/89pap/marti89075.txt. [Accessed: 27 December 2004].

MARTINEZ, M. 2003. High attrition rates in e-learning: Challenges, predictors, and solutions. *The e-Learning Developers' Journal* [Online], July 14. Available:

http://www.elearningguild.com/pdf/2/071403MGT-L.pdf. [Accessed: 7 January 2005].

MAYER, RE. 1999. Designing instruction for constructivist learning, in *Instructional-design theories and models (Vol. II. A new paradigm on instructional theory),* edited by CM Reigeluth. Mahwah, NJ: Lawrence Erlbaum Associates:141-59.

MAYKUNT, P & MOREHOUSE, R. 1994. *Beginning qualitative research: A philosophic and practical guide.* London: The Falmer Press.

McDONALD, J. 2002. Is "as good as face-to-face" as good as it gets? *Journal of Asynchronous Learning Networks* [Online], 6(2) August, Special Issue on Nursing. Available: http://www.aln.org/publications/jaln/v6n2/v6n2_macdonald.asp. [Accessed: 23 December 2004].

McFADDEN, AC, MARSH II, GE & PRICE, BJ. 1999. Why do educators embrace high-cost technologies? *Online Journal of Distance Learning Administration*, 2(3) Winter. Available: http://www.westga.edu/~distance/mcfadden24.html. [Accessed: 2 January 2005].

McLUHAN, M. 1967. *Understanding media: The extensions of man*. London: Routledge & Kegan Paul.

McMAHON, J, GARDNER, J, GRAY, C & MULHERN, G. 1999. Barriers to student computer usage: Staff and student perceptions. *Journal of Computer Assisted Learning,* 15(4), December.

McNAMARA, C. 1999. *Conflict management in groups* [Online]. Available: http://www.mapnp.org/library/grp_skll/grp_cnfl/grp_cnfl.htm. [Accessed: 30 October 2004].

McVAY LYNCH, M. 2001. Effective student preparation for online learning. *The Technology Source* [Online], November/December. Available: http://ts.mivu.org/default.asp?show=article&id=901. [Accessed: 4 October 2004; 1 January 2005].

MERRIAM, SB. 1998. *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass.

MEYER, SM. 2000. Implications of employing information technology in higher education: A literature survey. MEd dissertation, University of Pretoria, Pretoria: South Africa.

MEYERS, GE & MEYERS, MT. 1973. *The dynamics of human communication*. New York: McGraw-Hill.

MILLIS, BJ & COTTELL, PG. 1998. *Cooperative learning for higher education faculty.* Phoenix, Arizona: Oryx Press.

MINOLI, D. 1996. *Distance learning technology and applications*. Boston: Artech House.

MOORE, MG. 1989. Three types of interaction. *The American Journal of Distance Education*, 3(2): 1-6.

MORPHEW, VN. 2000. Web-based learning and instruction: A constructivist approach, in *Distance learning technologies: Issues, trends and opportunities,* edited by LK Lau. Hershey: Idea Group Pub:1-15.

MORSE, JM. 1994. *Critical issues in qualitative research methods*. California, USA: Sage.

MORSE, JM & STEPHANY, T. 2001. Appropriate use of pilot studies (Letter to the Editor). *Journal of Nursing Scholarship,* 33(4):i.

MOUTON, J. 2001. *How to succeed in your master's & doctoral studies: A South African guide and resource book*. Pretoria: Van Schaik.

MUIRHEAD, B. 2001. Interactivity research studies. *Educational Technology & Society* [Online], 4(3). Available: http://ifets.ieee.org/periodical/vol_3_2001/muirhead.html. [Accessed: 2 October 2004].

MURRAY, J. 2002. *The affective domain: A philosophical methodological community* [Online]. Available: http://www.morrismurray.net/affective_domain_essay.htm. [Accessed: 26 March 2002].

MUSE, HE. 2003. The Web-based community college student: An examination of factors that lead to success and risk. *Internet and Higher Education*, 6:241–61.

MYERS, JR. 2003. *The search to belong: Rethinking intimacy, community, and small groups*. Zondervan.

MYERS, CB & MYERS, LK. 1990. *An introduction to teaching and schools.* London: Holt, Rinehart & Winston.

NAHL, D. 2001. A conceptual framework for explaining information behaviour. *Studies in Media & Information Literacy Education* [Online], 1(2). Available: http://www.utpjournals.com/jour.ithml?1p=simile/issue2/nahlfulltext.html. [Accessed: 8 July 2004].

NEUMAN, WL. 1997. *Social research methods: Qualitative and quantitative approaches.* 3rd Edition. Boston: Allyn & Bacon.

OAKLEY, B. 1997. Asynchronous learning networks: At the cutting edge of higher education. *Key-note address at the 1997 Mid-South Instructional Technology Conference* [Online]. Available: http://www.mtsu.edu/~itconf/proceed97/oakley97/sld001.html. [Accessed: 3 September 2004].

ONLINE College @ Santa Barbara City College [Homepage of Online College @ Santa Barbare City College] [Online]. 2004. Available: http://online.sbcc.edu/success.cfm. [Accessed: 8 October 2004].

PALLOFF, RM & PRATT, K. 1999. *Building learning communities in cyberspace: Effective strategies for the online classroom.* San Francisco, CA: Jossey-Bass.

PETERS, L. 2001. Through the looking glass: Student perceptions of online learning. *The Technology Source* [Online], September/October. Available: http://ts.mivu.org/default.asp?show=article&id=907. [Accessed: 10 October 2004].

PHILLIPS, R. 1994. Providing student support systems in Project 2000 nurse education programmes – the personal tutor role of nurse teachers. *Nurse Education Today,* 14: 216-22.

PICARD, RW, PAPERT, S, BENDER, W, BLUMBERG, B, BREAZEAL, C, CAVALLO, D, MACHOVER, T, RESNICK, M, ROY, D & STROHECKER, C. 2004. Affective learning — a manifesto. *BT Technology Journal* [Online], 22(4) October: 253-69. Available: http://www.media.mit.edu/publications/bttj/Paper26Pages253-269.pdf. [Accessed: 10 December 2004].

PICCIANO, AG. 2002. Beyond student perceptions: Issues of interaction, presence, and performance in an online course. *Journal of Asynchronous Online Networks,* 6(1) July. Available: http://www.sloan-c.org/publications/jaln/v6n1/v6n1_picciano.asp. [Accessed: 11 November 2004].

POEL, M, OP DEN AKKER, R, NIJHOLT, A & VAN KESTEREN, A. 2002. *Learning emotions in virtual environments*. Available: http://wwwhome.cs.utwente.nl/~anijholt/artikelen/ace2002. [Accessed: 7 August 2003].

POLIT, DF & HUNGLER, BP. 1993. *Essentials of nursing research: Methods, appraisal, and utilization.* Philadelphia: Lippincott.

RAND, A. 1946. *Textbook of Americanism* [Online]. Articles that were written in 1946 for and appeared originally in THE VIGIL, a publication of The Motion Picture Alliance for the Preservation of American Ideals, Beverly Hills, California. Available: http://laissez-fairerepublic.com/textbook.htm. [Accessed: 20 November 2004].

REA, A, WHITE, D, McHANEY, R & SÁNCHEZ, C. 2000. Pedagogical methodology in virtual courses, in *Web-based learning and teaching technologies: Opportunities and challenges,* edited by A Aggarwal. Hershey: Idea Group Pub: 135-54.

REEVES, TC. 2002. *A model of the effective dimensions of interactive learning on the World Wide Web* [Online]. Available: http://itech1.coe.uga.edu/Faculty/treeves/WebPaper.pdf. [Accessed: 20 August 2004].

REEVES, TC. 1995. Questioning the questions of instructional technology research. *Instructional Technology Research Online.* Available: http://www2.gsu.edu/~wwwitr/docs/dean/index.html. [Accessed: 10 September 2004].

REID, JE. 2000. *What every student should know about online learning* [Online]. Available: http://illinois.online.uillinois.edu/online/course1/reid.htm. [Accessed: 7 October 2004].

ROBLYER, MD. 1999. Student motives for taking Internet-based courses at the high school and community college levels. *Journal of Research on Computing in Education. 32*(1), 157-71.

ROFFE, I. 2002. E-learning: Engagement, enhancement and execution. *Quality Assurance in Education,* 10(1): 40-50.

ROMER, KT. 1995. *Collaboration. New forms of learning, new ways of thinking in collaborative learning*, (ed. Levy-Reiner, S.) Washington, DC: Association of American Colleges, December.

ROSS, K. 2002. Foundationalism and hermeneutics. *The proceedings of the Friesian School, Fourth Series* [Online]. Available: http://www.friesian.com/hermenut.htm. [Accessed: 1 September 2004].

ROVAI, AP. 2003. In search of higher persistence rates in distance education online programs. *The Internet and Higher Education*, 6(1): 1–16. [Online]. Available: http://0-www.sciencedirect.com.innopac.up.ac.za/science?_ob=ArticleURL&_udi=B6W4X-47HC8MR-1&_user=59388&_handle=B-WA-A-W-AB-MsSAYVW-UUW-AAUECBBVVA-AAUDAAVWVA-YYCDAWCWV-AB-U&_fmt=full&_coverDate=03%2F31%2F2003&_rdoc=1&_orig=browse&_srch=%23toc%236554%232003%23999939998%23385535!&_cdi=6554&view=c&_acct=C000005298&_version=1&_urlVersion=0&_userid=59388&md5=a4b4f0b01a3c9a8ba52c410a0a107e52. [Accessed: 1 November 2004].

ROVAI, AP. 2002. Building a sense of community at a distance. *International Review of Research in Open and Distance Learning*, 3(1), April. [Online]. Available: http://www.irrodl.org/content/v3.1/rovai.pdf. [Accessed: 11 November 2004].

RUSHTON, JP. 1980. *Altruism, socialization and society.* Englewood Cliffs, NJ: Prentice-Hall.

SALMON, G. 1998. Developing learning through effective online moderation. *Active Learning* [Online], 9 December. Available: http://www.ilt.ac.uk/downloads/031027_AL_Salmon.pdf. [Accessed: 1 January 2005].

SALOVEY, P & SLUYTER, DJ. 1997. *Emotional development and emotional intelligence.* New York: Basic Books.

SAMOVAR, LA, HENMAN, LD & KING, AW. 1996. Small group communication, in *Small group communication: Teaching & practice*, edited by RS Cathcart, LA Samovar & LD Henman. Boston: McGraw-Hill.

SANDELOWSKI, M. 1995. Focus on qualitative methods. Qualitative analysis: What it is and how to begin. *Research in Nursing and Health,* 18(4): 371-8.

SAVENYE, WC & ROBINSON, RS. 1996. Qualitative research issues and methods: An introduction for educational technologists, in *Handbook of research for educational communication and technology,* edited by D Jonassen. London: MacMillan.

SCHMIDTMANN, H & GROTHE, S. 2001. Emotions of participants of virtual seminars / Wie fuehlt man sich in einer virtuellen Arbeitsgruppe? *Grupdynamik*, 32(2): 177-90.

SCHNIEDEWIND, N & DAVIDSON, E. 2000. Differentiating cooperative learning. *Educational Leadership*, 58(1) September.

SCHWANDT, TA. 2000. Constructivist, interpretivist approaches to human inquiry, in *Handbook of qualitative research,* edited by NK DENZIN & YS LINCOLN. 2nd Edition: 221-259. London: Sage.

SEELER, DC, TURNWALD, GH & BULL, KS. [Sa]. *From teaching to learning: Part III. Lectures and approaches to active learning* [Online]. Available: http://borg.lib.vt.edu/ejournals/JVME/V21-1/Seeler1.html. [Accessed: 12 September 2004].

SEELS, B & GASGOW, Z. 1990. *Exercises in instructional design*. Columbus, OH: Merill.

SELINGER, M. 2001. *Teacherless classrooms: Issues in teaching using ICT*. London: RoutledgeFalmer.

SELWYN, N, GORARD, S & WILLIAMS, S. 2002. 'We are guinea pigs really': Examining the realities of ICT-based adult learning. *Studies in the Education of Adults* [Online], Spring 34(1): 23-41. Available: http://0-search.epnet.com.innopac.up.ac.za:80/login.aspx?direct=true&AuthType=cookie,ip,url,uid&db=f5h&an=7048334. [Accessed: 2 October 2004].

SHEARD, J, LOWE, G, NICHOLSON, A & CEDDIA, J. 2003. Tackling transition: Exposing secondary school students to tertiary IT teaching and learning. *Journal of Information Technology Education* [Online], 2:156-80. Available: http://jite.org/documents/Vol2/v2p165-180-70.pdf. [Accessed: 27 December 2004].

SLAVIN, RL. 1997. A group analytic approach to the education of children and teenagers. *Journal of Child and Adolescent Group Therapy* [Online], 7(2): 69-78. Available: http://psychematters.com/slavin/slavinart.htm. [Accessed: 28 December 2004].

SMITH, MK. 2004. John Dewey. The informal education homepage [Online]. Available: http://www.infed.org/thinkers/et-dewey.htm. [Accessed: 6 September 2004].

SMITH, RS. 2002. *Learning in virtual teams: A summary of current literature* [Online]. Available: http://www.msu.edu/~smithre9/Project12.htm. [Accessed: 27 August 2003].

SMITH, S. 1992. *Communications in nursing.* 2nd Edition. St Louis: Mosby.

SOO, K & BONK, CJ. 1998. Interaction: What does it mean in online distance education? Paper presented at the *ED-MEDIA/ED-TELECOM 98 World Conference* on Educational Multimedia and Hypermedia & World Conference on Educational Telecommunications (10th), Freiburg, Germany, 20-25 June. (ERIC Document Reproduction Service No. ED 428724).

SOUTH AFRICAN CONCISE OXFORD DICTIONARY. 2002. Cape Town: Oxford University Press.

STACEY, E. 1999. Collaborative learning in an online environment. *Journal of Distance Education/ Revue de l'enseignement à distance* [Online]. Available: http://cade.athabascau.ca/vol14.2/stacey.html. [Accessed: 7 December 2004].

STATA, R. 1992. *What is individualism?* [Online]. Available: http://rous.redbarn.org/objectivism/Writing/RaymieStata/WhatIsIndividualism.html#DefiningAndContrasting. [Accessed: 8 December 2004].

STEDMAN'S POCKET MEDICAL DICTIONARY. 1987. Baltimore, USA: Williams & Wilkens.

STELZER, M & VOGELZANGS, I. [Sa]. *Isolation and motivation in on-line and distance learning courses*. [Online]. Available: http://projects.edte.utwente.nl/ism/Online95/Campus/library/online94/chap8/chap8.htm. [Accessed: 5 December 2004].

STRAUSS, A & CORBIN, J. 1998. *Basics of qualitative research techniques and procedures for developing grounded theory.* 2nd Edition. London: Sage.

STROMMEN, EF & LINCOLN, B. 1992. *Constructivism, technology, and the future of classroom learning* [Online]. Available: http://www.ilt.columbia.edu/Publications/papers/construct.html. [Accessed: 2 December 2004].

SWAN, K. 2001. Virtual interaction: Design factors affecting student satisfaction and perceived learning in asynchronous online courses. *Distance Education, 22*: 306-31.

TALAY-ONGAN, A. 2004. From a distance: Student empowerment and constructing teacher identities online. *Turkish Online Journal of Distance Education,* 5(3). Available: http://tojde.anadolu.edu.tr/tojde15/articles/ongan.htm. [Accessed: 27 December 2004].

TEDLOCK, B. 2000. Ethnography and Ethnographic Representation, in *Handbook of qualitative research*, edited by NK DENZIN & YS LINCOLN. 2nd Edition: 455-473. London: Sage.

TERRY, N. 2001. Assessing enrollment and attrition rates for the online MBA. *Technological Horizons in Education Journal Online,* February. Available: http://www.thejournal.com/magazine/vault/articleprintversion.cfm?aid=3299. [Accessed: 7 January 2005].

THURMOND, VA, WAMBACH, K, CONNORS, HR & FREY, BB. 2002. Evaluation of student satisfaction: Determining the impact of a Web-based environment by controlling for student characteristics. *The American Journal of Distance Education,* 16:169-89.

TRIMMEL, M & BACHMANN, J. 2004. Cognitive, social, motivational and health aspects of students in laptop classrooms. *Journal of Computer Assisted Learning*, 20:151-8.

TU, C. 2002. The measurement of social presence in an online learning environment. *International Journal on E-Learning* 1*(*2), 34-45. Available: http://www.aace.org/dl/index.cfm/fuseaction/ViewPaper/id/9188. [Accessed: November 2004].

TUROFF, M. 1997. Virtuality. *Communications of the ACM*, 40(9): 38-41.

TUROFF, M. 1995. Designing a virtual classroom. International Conference on Computer Assisted Instruction ICCAI '95 . *Conference report* [Online]. Available: http://www.njit.edu/old/CCCC/VC/Papers/Teaching.html. [Accessed: 2 October 2004].

VAN DER HORST, H & McDONALD, R. 2001. *Outcomes-based education: Theory and practice.* 2nd Edition. Pretoria: H van der Horst & R McDonald.

VAN RYNEVELD, L. (vanryneveldl@TUT.AC.ZA). 2004. *Games en rules*. E-mail to*:* Meyer, S. (salome.meyer@up.ac.za), 3 October 2004.

VAN RYNEVELD, L. 2004. Surviving the game: Interaction in an adult online learning community. Unpublished PhD thesis. University of Pretoria, Pretoria, South Africa.

VIDICH, AJ & LYMAN, SM. 2000. Qualitative Methods: Their History in Sociology and Anthropology, in *Handbook of qualitative research,* edited by NK DENZIN & YS LINCOLN. 2nd Edition: 37-84. London: Sage.

VONDERWELL, S. 2003. An examination of asynchronous communication experiences and perspectives of students in an online course: A case study. *Internet and Higher Education*, 6(1): 77–90. [Online]. Available: http://0-www.sciencedirect.com.innopac.up.ac.za/science?_ob=MImg&_imagekey=B6W4X-47W36MG-6-1&_cdi=6554&_user=59388&_orig=browse&_coverDate=03%2F31%2F2003&_sk=999939998&view=c&wchp=dGLbVzz-zSkWb&md5=d6e4ece7423e7b3ac1ac886191affe58&ie=/sdarticle.pdf. [Accessed: 11 November 2004].

VYGOTSKY, L. 1978. *Mind in society*. Cambridge, MA: Harvard University Press.

WAGNER, ED. 1994. In support of a functional definition of interaction. *The American Journal of Distance Education,* 8(2): 6-29.

WEGERIF, R. 1998. The social dimension of asynchronous learning networks. *Journal of Asynchronous Learning Networks* [Online], 2(1). Available: http://www.aln.org/alnweb/journal/vol2_issue1/wegerif.htm. [Accessed: 7 December 2004].

WHEELAN, SA, TILIN, F & SANFORD, J. 1996. School group effectiveness and productivity. *Research/Practice Newsletter* [Online], Spring, 4(1). Available: http://education.umn.edu/CAREI/Reports/Rpractice/Spring96/group.htm. [Accessed: 28 December 2004].

WILLIAMS, TS. 1983. *Socialization*. Englewood Cliffs, NJ: Prentice-Hall.

WOLCOTT, HF. 1994. *Transforming qualitative data: Description, analysis and interpretation.* Thousand Oaks, California: Sage.

WOOD, M. 2001. Altruism 101. *Pomona College Magazine* [Online], Spring 37(2). Available: http://www.pomona.edu/Magazine/PCMSP01/forum.shtml. [Accessed: 8 December 2004].

WOOD, JT, PHILLIPS, GM & PEDERSEN, DJ. 1996. Understanding the group as a system, in S*mall group communication: Teaching & practice*, edited by RS Cathcart, LA Samovar & LD Henman. Boston: McGraw-Hill.

WOODS, RH & BAKER, JD. 2004. Interaction and immediacy in online learning. International Review of Research in Open and Distance Learning [Online], August. Available: *http://www.irrodl.org/content/v5.2/woods-baker.html*. [Accessed: 30 October 2004].

WOODS, NF & CANTAZARO, M. 1988. Nursing research: Theory and practice. St Louis: Mosby.

YAHOO! EDUCATION. 2005. *The American Heritage® Dictionary of the English Language.* 4th Edition. Houghton: Mifflin Co. Available: http://education.yahoo.com/reference/dictionary/entry/. [Accessed: 7 January 2005].

YIN, RK. 1992. *Applications of case study research.* California: Sage.

YU, Y. 2001. Competition within computer-assisted cooperative learning environments: Cognitive, affective and social outcomes. *Journal of Education Computing Research,* 24(2): 99-117.

YU, FY, CHANG, LJ, LIU, YH & CHAN, TW. 2002. Learning preferences towards computerised competitive modes. *Journal of Computer Assisted Learning,* 18(3): 341-50. [Online]. Available: http://0-www.blackwell-synergy.com.innopac.up.ac.za/links/doi/10.1046/j.0266-4909.2002.00245.x/full/. [Accessed: 29 November 2004].

Annexe A: Information leaflet and consent form

Working title

The lived experience of affective factors in online learning (PhD (CIE)).

Introduction

You are invited to take part in this research study. This information leaflet will help you to understand the importance of this research. If you have any questions, which are not explained in this leaflet, do not hesitate to ask the researcher. Your participation is appreciated and of utmost importance for the planning of future e-Learn courses.

What is the purpose of this study?

The purpose of this study is to establish the affective experience of students who do a course online.

What is expected of you?

You are requested to participate in the focus group interview. You may only respond when you want to, as response is not compulsory.

What are your rights as a participant?

Your participation is completely voluntary and you can refuse to participate or walk out of the interview at any time without stating any reason.

Sources of additional information

If you have any questions regarding this study, please do not hesitate to approach one of my supervisors or me:

Researcher	**Name:**	Salomé M Meyer
	Tel (office):	012 354 2125/9
	Cell:	082 828 3380
	e-mail:	smeyer@med.up.ac.za
		salome.meyer@up.ac.za
Supervisor	**Name:**	Prof. JC Cronjé
	Tel (office):	012 420 3663
	e-mail:	jcronje@up.ac.za
		johannes.cronje@up.ac.za
Co-supervisor	**Name:**	Prof. I Eloff
	Tel (office):	012 420 5503
	e-mail:	ieloff@hakuna.up.ac.za
		irma.eloff@up.ac.za

Confidentiality

All information obtained during the course of this study/interview will be treated as strictly confidential. Data, which may be reported in scientific journals, as well as in the research report, will not include information that identifies you as a participant in this study. Your informed consent form will be stored in a safe place and it will only be accessible to the research team.

Informed consent

I hereby confirm that the researcher, Mrs SM Meyer, has informed of the nature of this study. I have received, read and understood the Participation Information Leaflet. I am aware that the results of the study, including personal details will be anonymously processed into the study report. I have sufficient opportunity to ask questions (of my own free will) and declare myself prepared to participate in the study.

Participant's name:

(Please print)……..

Participant's signature:…… **Date :**…….

Name of witness:

(Please print)……..

Signature of witness:……... **Date:**……..

I, Mrs SM Meyer, hereby confirm that the participant has been informed in full of the nature and the manner in which the study will be conducted.

Researcher's signature:…….. **Date:**……..

Annexe B: Transcript of first focus group interview

Keys: Interviewer = Q; Interviewee = R

Q: First question: How did you experience this module? Salomé het vir julle verduidelik- dit is die Survivor wat julle gedoen het, ne – daardie module. As jy fokus net op daardie module, wat was julle belewenis daarvan? Wie wil begin? Hoe't jy dit beleef? Da's iemand …

R: With my background to, from where I come, I experienced a lot through this module. It was the one module in one year that I experienced so much.

Q: So you learned a lot. But if you think of the emotional experience that you had?

R: There were times I got frustrated, ag, but I could understand the frustration goes with, you know, that it's work…

Q: So you had a lot of hard work. What else made you frustrated? Anybody else?

R: I think, um, ek dink as ek my emosies wil beskryf in daardie tyd, was dit 'n absolute roller-coaster. Daar was jou op-oomblikke, daar was jou af-oomblikke. Frustrasies het ingekom as jy nie presies geweet het wat van jou verwag word nie, maar soos wat jy deur dit geswoeg en gesweet het, en jy kom uiteindelik- veral as jy ernstige frustrasies gehad het-, en jy kom eventueel by daardie a-ha-belewenis uit, dan wil jy jubel van opgewondenheid, want jy't uiteindelik bereik wat jy aanvanklik nie mooi geweet het waarna toe is ons nou oppad nie. So, vir my persoonlik, was dit roller-coaster oomblikke gewees. Oppe en affe regdeur, van die begin, tot en met einde. Maar uit retrospect, as ek nou moet vergelyk, dan was die op vir my meer gewees as wat die af werklik was.

Q: Watter emosies het jy beleef toe jy nou hierdie - soos jy nou sê, dit was oppe en affe – toe jy op was, wat het jy gevoel?

R1: Wel, as ons byvoorbeeld, wat was daardie – Java – Ja, joe, ek het my alie afgesukkel, en dit is die heeltyd tref-en-trap, tref-en-trap, tref-en-trap. En, toe ek nou uitendelik sien hier hardloop hierdie oor my skerm, toe's dit soos in, ek is moerse opgewonde. Ek meen ek het vir – wat's haar naam? Wie was die fasiliteerder?

R2: Linda.

R3: Ek het onmiddellik vir haar op Yahoo! Messenger gesê, kyk, my goed is op, en ek voel baie impressed met myself. So, dit was ‘n absolute hoog vir my op daardie stadium…

Q: So die hoog was dat jy impressed was met jouself omdat jy die a-ha-antwoord het?

R1: Ja.

R2: Dis baie lekker en jy’s trots op jouself.

R3: Yes.

Q: En die lows?

R1: Die lows was, ek dink veral op stadiums as jy dalk nou byvoorbeeld wat – ek meen, ons het ook maar verskillende tye wat ons op die Net geklim het, en um, as jy met jou lonesome self daar sit en jy probeer, probeer uitfigure wat daar aangaan, en jy’t nie regtig die geselskap soos wat ons eventueel eintlik toe nou met *Yahoo! Messenger* begin kry het nie.

R2: Dit was lekker.

Q: Wanneer in die game het dit gebeur?

R: Dit was ‘n bietjie heelwat later, halfpad. Dit was omtrent halfpad. Um, so daardie eerste deel. Ek dink ek meen as mens kyk ook, as mens kyk na die boodskappe soos wat ons - aan die begin was dit absolute chaos vir almal gewees, en ek dink met *Yahoo! Messenger* wat toe nou begin inkom het, het die boodskappe op die message bord begin verminder, omdat ons so direk met mekaar kon begin kommunikeer. En dit was vir my ook baie, baie nice.

Q: So dit was toe julle kon begin met mekaar kommunikeer wat dit begin beter raak het?

Ja.

Q: Toe jy met iemand kon begin gesels oor die netwerk, né?

R1: Want ek dink e-mail, om met e-mail te kommunikeer, is soortvan ‘n dooie kommunikasie. Jy weet, jy praat met die ou, en dan moet jy wag voordat daar ‘n antwoord terug kom. Maar van die messenger was dit lekker. Jy kon sê hoor hier, ek sukkel, ek’s moeg, ek’s gedaan, en dan kom die ander ou terug.

R2: Dis onmiddellike terugvoer.

R3: En dan voel jy sommer beter.

Q: So die interaksie het dit vir julle makliker gemaak.

R: Wat vir my nogal die eerste helfte – as ek nou moet dink, dit was nogal alleen, want jy sit daarso en jy werk aan jou ding, en jy kan dit nie regkry nie, en jy stuur nou maar 'n email na Elearn toe, en more-oggend miskien het een of twee mense reply, en dan kyk jy nou maar wat jy kan doen en so-aan, waar, met *Yahoo! Messenger*, was dit die lekkerste gevoel om halfeen die nag te sit met jou hande in jou hare, en woep, hier kom 'n boodskap op: Ag, ek is bly om te sien jy's ook op. Waarmee is jy besig? Ek sukkel met hierdie ding. Ek kan dit nie doen nie. Help my. Nee, maar probeer dit, probeer dit. So die spanwerk met die synchronous kommunikasie het vertienvoudig, want omdat jy direk met iemand kon praat en dadelik sal daardie persoon 'n reply kan skryf.

Q: So dit was amper 'n tipe van ondersteuning wat ingekom het?

R1: Ja.

R2: Kind of a support from your collegues that came in with the messenger.

Q: *Yahoo! Messenger*?

R1: Ja.

R2: Ja, ek dink almal sal saamstem dat dit die module is waarin ons die hardste gewerk het, en dit was regtig – ekskuus vir die Engelse woord – exiting om eenuur in die oggend op die Net te gaan, en jy sien met *Yahoo! Messenger*, o, daardie ou is ook online. En dan tik-tik-tik jy gou, en jy se sterkte.

R3: Ek mis dit…

R4: Ja…

R5: Ja…

Q: So dit was baie ondersteunend gewees, veral as jy alleen gevoel het. So julle het nou gesê … she said that she learned a lot. She felt that she learned a lot and she experienced a lot. She got a lot of information and she learned a lot. Jy sê daar's oppe en affe. Iemand anders wat 'n ander tipe belewenis gehad het?

R: Ek dink een van die dinge wat ek moet sê is dit het my baie angstig gemaak. Daar's baie wat my vreeslike angs gegee het.

Q: Wat het jou angs gegee?

R: Veral die spanwerk. Jy weet, dis baie, het vir my angstig gemaak, want ek was altyd bang, jy weet, ek was nie competent genoeg om in die span te kan deelneem nie, of dit wat, jy weet, dit was vir my baie moeilik. Dit is een ding, en die ander ding

wat ek ook wil sê is ek dink hierdie ding wat mens ook angstig gemaak het, is jou spanlede, was nie altyd – of jou tribe members – was nie altyd aan diens of op lyn gewees wanneer -. So ons het baie meer cross-tribal relationships gehad soos wat jy inter tribal relationships geontwyk het, bloot-en-al vir die tye wat 'n mens op lyn was. Maar daar was tribal, jy weet, tribal frustrations in die sin dat, jy weet dat jy voel, jy weet, jy't nie die ding reggedoen nie, of jy weet nie hoe om dit te doen nie, en jy …

Q: So dit gaan ook weer oor die ondersteuning. It's about the support that's there or not there, and it makes you anxious.

R: Ek dink nie dis die support wat nie daar is nie. Ek dink jy het tog gevoel die mense support jou. Ek dink dit is n kwessie van dat jy, jy weet, ek stel altyd die balkie te hoog vir myself. Ek is bang ek drop die ander ouens, jy weet, en dan maak hulle dit nie.

Q: En het dit iets te doen met die feit dat die hele module in 'n tipe van speletjie aangebied is?

R1: Ja, want jy wil tog wen. Almal wil wen. Ek dink dis wat die angstigheid inbring.

Q: So die angstigheid is daar weens die feit dat almal wil wen. Everybody wants to win.

R1: Ek dink nie ons wou gewen het nie. Ek dink ons wou beter al die take reggekry het.

R2: Dis nie jy wat wil wen nie, maar jy's bang jy raak jou span. Jy weet, jy as span… Soos die voltooiing van die taak binne die gegewe oomblik. En hierdie ding moet vyfuur moet hy in daardie … gelaai wees, en jy laai en jy laai, jy weet en daar gaan nie iets vorentoe of agtertoe met die FTP's nie.

R3: 'n Groot bron van angs vir my was dat die goed so geweldig nuut en anders was met die tweerigting – jou res van jou vorige lewe se kennis help jou niks. Jy voel jy sit hierso, totaal nakend en sukkel. Jy't niks wat jou bietjie half hoop gee in jou onkunde nie. En die feit dat jy 'n span is, dat jou dommigheid maak, jy weet, is so ontmasker.

R4: Jy kan nie soortvan soos 'n brief skryf wat net jy en die ou wat dit nasien dit sien, en nie almal sien watse nonsens vang jy aan nie.

R5: Ek dink dis wat die angs bring.

R6: Dit het vir my baie angs veroorsaak.

R7: Jy weet nie wat weet die ander nie, en jy weet jy weet te min, maar jy weet nie of hulle ook so min weet of minder of meer weet as jy nie.

R8: Dit is nie ter sprake nie. Jy voel vreeslik alleen terwyl jy daar sit, en solank jy die ding nie regkry nie, weet jy hoe ver is jy van regkry af – jy is nogsteeds net nie daar

nie. En dan seker die oomblik as jy dit gaan regkry, dan is, soos sy sê, dan is dit fantasties!

R9: My belewenis daarvan was nie roller-coaster gewees nie. Myne was maar konstant gewees. Een van frustrasie aan die negatiewe kant, en dan beangstheid daarmee saam, as gevolg van die goed wat hulle alles genoem het, maar ook die positiewe goed wat daarmee saam gaan. So ek het hierdie kontrasterende emosies beleef die heeltyd, maar op 'n konstante vlak – nie op en af die heeltyd nie. Van die frustrasies was veral in die begin, dit was soos jy word in die diepkant ingestamp, en jy kan nie swem nie, en almal skarrel, en dit was totale chaos gewees. Dit het my omtrent drie weke gevat – ek is 'n tipiese behaviouris – voor ek 'n patroon begin sien het in hierdie goeters. In daardie tyd het ek, ek bedoel party mense moes my dra op daardie stadium, want ek het nie geweet presies wat om te doen nie. Dit was totale chaos gewees, maar toe ek my patroon begin sien het, toe begin jy nou bietjie meer competent raak. Maar toe het die frustrasies weer geskuif na 'n ander vlak toe op die einde, toe daar 'n shuffling van tribes was. Toe is daar ander tipes frustrasies. Ek het intussen competent geraak, hetsy deur doelgerigte leer of accidental learning, maar nou het daar ander dinge begin gebeur. Onderstrominge tussen die tribes het begin plaasvind. Politieke goed het begin plaasvind. Dit was nou weer 'n ander tipe.

Q: Wat was die verskil tussen die eerste tipe – die chaos?

R: Die chaos aan die begin – jy kan nie swem nie, want ek bedoel dit is, jy weet nie wat om te doen nie, jy weet nie wat aangaan nie, jy weet nie waar om te soek nie, jy weet niks. Jy trap water. En later toe jy nou begin die competencies aanleer, en toe ek uitgevind het hoe werk die goed en hoe – toe gaan dit goed aan, maar toe kom daar 'n verskuiwing van tribe-lede aan, hier op die einde rond, en daar het weer 'n ander tipe frustrasie daarmee saamgekom, wat nou nie te doen het met die competencies nie.

Q: As jy 'n woord moet gee vir daardie frustrasie?

R: Vir watter een – die eerste een, of die tweede een?

Q: Die tweede ene. Hoe was dit anders gewees as die eerste een?

R: Ontnugterend.

Q: Ontnugterend, want jy't gedink jy weet nou, en nou's dit anders?

R1: Ja, maar die vlak het geskuif. Jy's nou competent hiermee, jy kan nou dit doen, maar toe't daar, toe't rekenaars nie meer verband gehou hiermee nie. Dit het nou mense begin werk..

R2: Ek dink wat hy sê, sluit aan by wat Sanet sê. Dit is naamlik dat, jy weet, ons het gewoond geraak aan ons tribe. Ons het daardie verhouding gebou, en toe ons 'n nuwe tribe vorm, toe staan ons weer naak.
R3: Terug by punt een.
R4: Ja, ek dink die mense wat eerste afgestem is, het 'n groot probleem gehad, want hulle word toe saam in 'n span gesit, en outomaties weet niemand van hulle enigiets wat om te doen nie. Ek dink nie dit was so 'n goeie idee nie, agterna, maar dit het niks te doen met jou vraag nie.

Q: Ja, maar dit gaan in 'n latere vraag kom. Miskien moet ons sommer hoor. Mense wat nie die kursus voltooi het nie – het almal van julle die kursus voltooi? What made you leave?
R: Actually, because I failed the computer assuming the human element, you know. I failed instantly, and, I asked myself, now we're in this module, this type of module, where key things would be. But now it was still there, you know, it was like going to class, and at some stage I just felt there's no support. There is not enough support.

Q: When was that? At what stage of the module was that?
R: You know, right at the beginning. But I just happened to drop it where I said: No, I can't.

Q: And when was that in the module? If you think, was that when the messenger system came in? Or was it before?
R: Definitely I was frustrated by work as a team, definitely. And when we were writing a test, you know, people are busy writing, the time, you're struggling. You know, it's like … My test was with a team, here, not a test inside, so I mean, by the time you reach the test, how agitated are you?

Q: So you had trouble getting into the system. If you had a chance again to do the same course, are you going to do it actually?
R: Wat baie moeilik was, was veral in daardie eerste ruk toe dit so deurmekaar was. Ons was nou almal in ons tribes, en ek wil nou eerlik wees, op daardie stadium, selfs al wou ek iemand help, kon ek nie, want ek was besig om net vir myself kop bo water te hou. En ek dink dis nogal waar – die ding was so intens, dat, dit was daardie eerste ruk elkeen vir homself. Jy kon nie … Iemand stuur 'n e-mail na Elearn toe en sê ek kan nie dit doen nie, help my asseblief. Twee, drie dae daarna, as ek myne uitgefigure het, dan sal ek reply en sê hoor hierso, dit en dit en dit. Maar daar moet ek met haar

saamstem; daar was nie in 'n tribe, of tussen 'n klomp van ons enige support nie. Die support het later in die module gekom.

Q: As jy moet sê waar, is dit toe die messenger system ingestel was?
R1: O, weet jy wat, ek voel vir my was dit toe ek, soos Hendrik, soortvan 'n patroon uitgewerk het, wat ons, ons kry ons ding, en dan begin ek deur hom te werk stap-by-stap-by-stap, en sodra ek gemaklik was met die ding, dan kon ek begin om ander mense te help. Maar tot op daardie stadium, ek dink dit was elke week, was daar twee of drie dae van chaos wat ek nie vir eimand kon help nie. Ek's baie jammer. Ek het net my eie bas probeer red, en dan daarna, kan jy iemand anders probeer help, maar dan is dit baie keer te laat vir daardie persoon.
R2: Dan is hulle self al gehelp.
R3: Of dit is so laat in die week, verstaan, of dit is so laat in die week, dat daardie persoon nie kan die goeters klaarmaak in tyd van die afsnydatum Sondagaand twaalfuur nie.

Q: So die speletjie self, het ook 'n invloed op hierdie hele proses.
R1: Ek dink die swakkeres sou beter gedoen het as dit nie 'n speletjie was nie, as ons in ons tribes gebly het die heeltyd, en as dit 'n kompetisie onder die spanne was, en nie spanlede onder mekaar nie.
R2: Die afstem, dink ek, het 'n baie negatiewe effek gehad. Jy kon dit agterkom aan die – jy kon tussen die lyne lees. Die mense voel nie lekker nie.
R3: Ek sou nie lekker gevoel het as ek afgestem was nie. Jy's tog 'n mens. Jy vat dit persoonlik.

Q: Wat het jou laat besef dat die mense nie…
R: Dis iets wat jy tussen die – dit was nie in die woorde as sulks nie. Ek weet nie, dit was 'n gevoel net wat jy gekry het in die boodskappe, dat die mense is bitter ongelukkig.

Q: Is hier iemand afgestem wat hier is?
R1: Seker almal.
R2: Almal is afgestem.

Q: Wat het jy gevoel toe jy sien jy's afgestem?
R1: I didn't feel that way. I just was not part of the group. I was just watching people voting each other in and out, you know, because everything was really fast, and others maybe needed – they had the priority to vote, to be voted, I mean. For me, I

never even voted once. I was looking at the learning part, but at some stage I could see that here it's about voting…

R2: Ek het op 'n stadium self gevoel dat as… jy werk so lank om iets reg te kry, en jy sukkel so, dat jy op 'n stadium kom, dan dink jy: luister, nou't ek genoeg gehad. Ek het nou genoeg tyd hieraan spandeer. Ek het nie langer ure om hieraan te spandeer nie. Mag hulle my nou maar asseblief net uit die span uit vote.

R3: Ja, jy't dit gevra op 'n stadium.

R4: Ja, daar was sulke boodskappe.

R5: Weet jy, ek dink wat, ek moet sê, dis die kursus wat, dis die module wat ek die meeste geleer het. Dis ongelukkig ook die module gewees wat ek veral aan die begin gevoel het, ek nie genoegsame tegniese kennis gehad het nie. Dit het ongelooflike frustrasies veroorsaak. Jy weet jy moet sekere goed doen, en jy weet as jy net, net 'n dag ekstra tyd het om daaraan aandag te gee, of erens 'n dummyboek te gaan opsoek, dan gaan jy dit dalk regkry, maar jy't nie daardie tegniese kennis om dit wat jy moet doen, te doen nie.

Q: So watter tegniese kennis het 'n ou nodig voor hy so 'n kursus begin?

R: Om byvoorbeeld daardie scrollbar wat ons moes maak – ek kan nie vir jou sê hoeveel ure het ek daaraan spandeer nie. En ek weet dat as jy, as iemand net vooraf vir my gewys het hoe om dit te doen, het ek dit binne minute gesnap en dit gedoen. So daar was tegniese goed van 'n ou gevra om dit te kan doen – ek wil amper vir jou sê software applications wat jy moes hanteer, wat ek geen, geen benul van gehad het nie. Dit was vir my 'n groot frustrasie. Die ander frustrasie was gewees dat, ek was in 'n span gewees waar my spanmaat bedags online was, en ek snags online was. So daar was tussen ons geen kommunikasie nie. Ons was net twee aktiewe lede in die span gewees. Ons span was so saamgestel dat binne die eerste twee weke, het al die ander lede gedisappear. So daardie ondersteuning wat jy nou gehad het van waar jy vyf ouens, of ses ouens aan die begin was, was darem 'n tipe van elkeen het min of meer 'n bydrae gelewer, het een ou in die dag probeer iets doen, en die ander ou in die nag probeer iets doen, en niks het eintlik lekker gewerk nie. Dit was regtig 'n groot frustrasie, en dis, ek het op 'n stadium regtig gedink, en ek het ook gesê aan iemand: luister, vote my asseblief net uit. Ek het nou genoeg gespook…

Q: Maar jy't gebly. Wat het gemaak dat jy bly?

R1: Hulle het haar nie gelike nie.

R2: Niemand wou my uitvote nie, want daar was niemand om uit te vote nie. Verstaan jy, dit was, ons was net twee aktiewe lede in daardie span gewees, met ander woorde, elke ronde is van die onaktiewes uitgevote, en jy moes aanhou met daardie

ongelooflike frustrasies wat – nou moet ek ook sê, toe ons met *Messenger* begin het, het daardie frustrasievlak minder geword, want, ek kan nie onthou of dit 'n reël was – nee, ons mag tussen spanne gekommunikeer het. So, ek wil amper vir jou sê, van ouens wat 'n mens op 'n natuurlike basis oor die loop van die kursus, voorheen al ondersteuning gekry het, het jy nou ondersteuning gekry. En daar was niks lekkerder, soos iemand al gesê het, om drie-uur in die oggend te sit, en te weet daar's vier ander ouens ook daar.

Q: So die feit dat jy in 'n ander tribe was, het nie gemaak dat jy voel dat jy nie met 'n ander een kan kommunikeer nie?
R: Nee, nee. Inteendeel, ons het redelik baie gekommunikeer.

Q: As jy dink – dit is nou 'n vraag wat later ook kom, maar as jy dink aan die verskil tussen hoe jy online kommunikeer en die verskil hoe jy kommunikeer het wanneer jy iemand voor jou het. Hoe verskil dit? Hoe is dit dieselfde?
R1: Ek dink ons het dit nogal dieselfde. Ons het baie van *Yahoo!* se emoticons gebruik.
R2: Ja.

Q: Julle het baie emoticons gebruik.
R: Ja, veral *Yahoo! Messenger* se emoticons. As ons iets gese het, het ons gesmile, of jou wange het so dik gestaan van boosheid, en al daardie tipe van ding. So, ek dink in daardie opsig kon ons darem nog emosies ook deel – oordra – terwyl ons met mekaar kon kommunikeer. As jy 'n ding wou gil, dan kon jy hom gil met 'n emoticon.

Q: Hoe was dit nog dieselfde as wat jy met iemand so sal gesels?
R: Wel, ek het maklik gesê: Ag damn, ek kry nie iets reg nie, waar jy nou met die normale e-mail jou spelling sal check en seker maak dat jy alles. Ek dink ook dat die ander ding was, met *Messenger* het jy in jou eerste taal gekommunikeer; op die e-pos het jy in Engels gekommunikeer. Ek persoonlik, het eers my goed in Word getik, en dit dan gespellcheck, en dit dan gecut en paste. En ek is seker daar is baie ander ouens wat dit ook doen, en ek is oortuig daarvan dat baie mense nie deelgeneem het op die e-pos nie, omdat die taal 'n probleem was, want teen die tyd wat jy jou goed getik het en ge-edit het, en weer getik het, en seker gemaak het die spelling is reg en seker gemaak die tenses is reg – jy moet onthou, ons is darem M-studente, né. Jy kan mos nou nie jou is en am's en are's verkeerdom sit nie. Dan was die hele verloop van die *Surfiver* game, was in Engels.

Q: So the whole module was in English.

R: Ja.

Q: En wie se eerste taal is Engels hierso? And that was a bit uneasy.

R1: Dit was. Jy't hierdie ontsettende – want dis ook waar die angstigheid inkom. Jy's bang jy slaan jou naam met 'n plank.

R2: Ek het later nie omgegee ek slaan my naam met 'n plank nie, want ek vir jou sê, jy't nie tyd gehad – jy weet, ek het nie tyd gehad om te spell check nie, want jy het so geveg vir die Woensdag-, of die Sondagaand se ding, dat jy weet, jy't nie tyd gehad nie. Jy't net gesê hoe jy sê, en klaar.

R3: Ek dink ook dat 'n mens se akademiese deelname op 'n baie laer vlak, of baie minder is, as wat – ek dink jou akademiese deelname is baie minder op die e-pos as wat dit normaalweg sou wees, want jy's bang as jy te akademies raak – en ek dink dis nou ook die probleem – as jy te akademies raak, dan gaan ouens jou knowledge begin krip, waar, as jy net deelneem aan die administratiewe goed van hoe laat moet ons daar wees, en wat het jy nou hier gedoen en … Dis op 'n baie laer vlak, die kommunikasie, waar ek dink as, in die eerste plek dink ek dat as 'n mens dit in jou eerste taal gedoen het, en in die tweede plek dat jy 'n klein bietjie meer tyd gehad het, sou daar dieper, op 'n hoër vlak, akademiese goed uitgekom het. Dat 'n mens meer issues sou bespreek het, en meer akademiese kommunikasie gehad het. Want nou was die kommunikasie gebasseer op 'n help-asseblief-ek-gaan-versuip-vlak gewees. Jy't nie regtig – ek mis dit nogal dat die kommunikasie administratief van aard is. Dis al.

Q: Ek wil, ekskuus, kan ek net stop, want ek wil net seker maak daardie ding tape, want ek dink net die rooi knoppie moet in wees, en ek sien altwee knoppies is in. Stop hom net vir my…

R: Weet jy, ek wil nou net eintlik iets sê na aanleiding van wat sy gesê het, dat, toe haar WebCT nie gewerk het nie, was dit vir haar die laaste stoot. Ek het nou presies die teenoorgestelde effek daar gehad; totdat ons op WebCT kom, toe dag ek, ah, nou kan ek sien wat ek nie kon sien nie. En toe't ek nou soortvan 'n tweede asem geskep. So daar was 'n paar struikelblokke gewees.

Q: Sy kon nie inkom nie, jy was in, maar toe …

R: Nee, toe's ek gemaklik, want ek ken die – want ek het toe nou al 'n kursus daar gedoen die vorige week. So dis vir my weer: as jy te onbekend met 'n ding is, is daar nie baie lekker goed daaraan nie. As jy erens 'n strooihalmpie het wat jy regkry en herken, dan skielik beleef jy dit ook baie beter. Dit was vir my…

Q: You wanted to say something?

R1: Yeah, it's okay…

R2: 'n Ander ding wat ook, ek weet nie of julle dit so ervaar het nie, maar partykeer het Linda 'n ding ingegooi, soos haar heel eerste vraag oor body synchronism. Dan was ek so hard besig om nou nog hierdie goed uit te figure wat sy gevra het, nou kom hierdie vraag. Dan voel ek, ag, wag nou net eers, dat ek net eers hierdie uitgesort kan kry, byvoorbeeld: wat's 'n IP-adres? Jy weet, sulke tipe van goed wat ek gevoel het, ek het nie krag hiervoor nie, en uhm, wat ek dan gedoen het, is ek storm op 'n search, en ek soek iets oor 'n IP- adres. Ek lees hom nie eers behoorlik nie. Ek copy en ek paste net. Daar's my weergawe, en ek gaan aan. Ek voel ek het dalk die punt gemis in daardie opsig van wat sy dalk wou bereik het met ons, met daardie vrae, want ek het 'n shortcut gekies, want ek het gevoel die ander goed het vir my half belangriker gelyk as hierdie vragies wat sy elke nou-en-dan vra, alhoewel ek tog wou deelneem.

R3: Ek het half gevoel dit is dalk bedoel vir mens om 'n frustrasie te wees, en ek het dit dienooreenkomstig hanteer. Ek het na die vraag gekyk, en as ek nie op die oomblik die antwoord kon sien nie, dan het ek dit doodeenvoudig geïgnoreer, want ek het net gevoel dit was dalk haar doel om ons te irriteer daarmee, en ons te side track van wat ons mee besig is, en regtig, tyd was 'n ongelooflike probleem gewees. Want as 'n ou, ek werk op deadlines, en dan werk ek reeds vyftien uur 'n dag. Dan het ek nie nog tyd om agt uur die aand, of van ses in die aand tot ses in die oggend op die Internet te wees om te sukkel om goed reg te kry nie. Dan wil ek, ek wil amper vir jou sê, dis waar die *Messenger* vir my 'n tipe van verligting was, want ek kon sê, ek kan dit nie doen nie, nou moet iemand my help om dit vir my makliker te maak om dit te kan doen, want ek dink almal van ons is op die vlak dat as iemand partymaal vir jou drie reëltjies sê van begin hier, doen nou dit en doen nou dat, dan kan jy dit doen, maar dis net om daardie beginpunt te kry. En dis wat ek dink. Die tegniese- en my software kennis, was nie genoegsaam gewees om my die vrymoedigheid te gee, en om die ding vir my lekker te maak nie. Ek dink as ek als-en-als so bietjie van geweet het, dan het ek, miskien het dit 'n klompie deure vir my oopgemaak. Wat vir my ook sleg was, is dat baie van die goed wat ek eventually reggekry het, met probeer en weer probeer en weer probeer, en uiteindelik kry jy dit reg, sal ek nou nie weer kan doen nie, want ek weet nie hoe't ek daar uitgekom nie. Ek het ure daaraan spandeer, dit uiteindelik genadiglik reggekry – niemand weet hoe nie, en ek sal dit nie weer kan regkry nie. Dis hoekom, daardie leer wat veronderstel was om plaas te vind, het nie plaasgevind nie.

Q: As gevolg waarvan is dit?

R1: Tyd, en ek dink jy't baie gedoen om te probeer en weer probeer maar jy't nie 'n clue wat het jy so gedoen, omdat daar soveel tyddruk was. So, ek kan nie, ek kan nou nog nie daai scroll bar doen nie, alhoewel ek dit op die ou-end reggekry het.

R2: Partykeer kry jy iets per ongeluk reg. Ek het scroll bar reggekry, en ek het hom later weer reggekry met my persoonlike Web site hierso by die universiteit. En nou wil ek dit weer doen, en ek het gesukkel, en ek sukkel nou al dae lank. Ek kan dit nie weer doen nie. Ek wil net nog iets noem, iets wat nogal 'n verandering miskien in terme van gevoelens was wat ek beleef het, was die *Interwise*-sessie. Ek weet nie of julle dit ook so beleef het nie, maar van die *Interwise*-sessie af, het – dit was so 'n sinchroniese ding wat ons eers nie kon gedoen het nie – was daar vir my absolute motivering wat uitgekom het, en die hele groepdinamika. Dis hoe ek dit ervaar het, en ek dink die rede daarvoor sal wees, waar jy miskien by jou rekenaar sit en al daai goed, het hierdie ding skielik lewe gekry, en het jy jou mede-studente se stemme gehoor.

Q: So julle kon mekaar op 'n stadium hoor?

R: Met een sessie, ja.

Q: En hoe het dit die belewenis verander?

R1: Positief, ja asof daar gemotiveerdheid gekom het onder die medestudente.

R2: Ons het selfs, daarna het ons deur *Messenger* gesels.

R3: Ja, maar daai was nou half 'n turning point.

Q: Hoe was die verskil in as jy iemand se stem kan hoor?

R1: Warmer. Bietjie meer persoonlik, en dit voel nie dis jy teen die Internet nie. Dis bietjie jy en iemand anders teen die Internet.

R2: Dit gee meer persoonlikheid aan die ander persoon.

Kan ek maar aangaan?

R1: Ja, jy kan.

R2: Ons praat nou hier van die affektiewe. Ek weet nie wie van julle het die probleem gehad nie, maar toe my eerste telefoonrekening kom, was dit tussen my en my vrou affektief nie goed nie.

Q: Die mense wat nie eintlik iets kon doen nie, is eerste afgestem…

R1: Ja, hulle wou nie die competent mense afstem nie, want dan gebeur daar niks meer in die span nie.

R2: Ja, so hulle het in ‘n groep gesit waar daar niks gebeur nie. Niemand weet nie.
R3: Niemand kan mekaar help nie. So ek dink dit het ‘n baie destructive uitwerking gehad op die groeplede. Dit was baie onmotiverend.

Q: Onmotiverend. En as jy nou sê onmotiverend, wat het julle beleef as dit nie motiverend was nie?
R: Ek is later afgestem. Ek dink ek en Erika is saam op ‘n stadium afgestem, en ons het besluit – dit was nou heelwat later – het ons besluit, ek het besluit ek gaan nie deel van daai groep word nie, en ek het vir Linda ge-email en gesê dit is my redes, en ek gaan, ons gaan ons eie groep vorm. So, daai groep was gestig, toe vorm ons ‘n aparte groep, want ons wou nie deel van daai groep word nie. Ons wou nog steeds geleer het, en interaktief deelgeneem het.

Q: So dit was nie eintlik ‘n negatiewe tipe motivering nie, want eintlik het julle weer iets positiefs begin daarmee.
R: Ons het die reëls verbreek.

Q: Julle het die reëls verbreek.
R: En dit was net twee van die lede uit die hele groep uit wat so-iets sou doen.

Q: Hoe het dit gevoel om die reëls te breek?
R1: Ek het vir haar gesê ek gaan dit breek, en ek het nie geworry daaroor nie. Ek het vir haar gesê, ongeag van wat jy sê, dis wat ek gaan doen, want ek wil my waarde vir my geld kry uit hierdie *Surfiver* storie uit, en ek gaan nie in ‘n groep sit waar ek die enigste een is wat alles moet doen, en al die ander mense dra in die proses nie, want dit gaan ook oor punte aan die einde.
R2: Dit was aan die einde van die dag ‘n spel gewees, en ek dink baie van die reëls was gemaak om te breek. Ek het byvoorbeeld, as ons ‘n opdrag gekry het, het ek gekyk in hoe ‘n mate ek my kinders daarby kon betrek het, wat waarskynlik meer tyd en kennis as ek het.
R3: Ja, jy’t jou ondersteuningsbronne opgetrek.

Q: Jy wou iets gese het.
R: Ek wou gesê het van wat Hendrik nou gesê het, o nee, wat ek wou sê van die reëls verbreek, is dit: in die laaste pylvak, het niemand gestem nie.

Q: Weet jy wat gebeur het ...
R1: Maar ek het myself uitgestem, weet ek, want ek het my computer gecrash.

R2: Ek het vir Linda ge-email. Ons het op ‘n stadium in ons groep gekom, wat ek gevoel het, ek kan nie iemand uitstem nie. Ons het te lank saamgekom en so, en ek het vir Linda ge-email en gesê ek kan nie stem nie, en sy’t gesê, wel, dan’s dit ‘n random storie. En die feit dat ek toe nou nie uit is nie…

Q: Was daar skuldgevoelens?

R1: Nee, daar was nie.

R2: Ek het gedink in die tribe waarin ek was, het ek myself uitgestem. En toe’t ek gaan kyk wie het gestem, en toe sien ek maar niemand het gestem in die laaste..

R3: …Because people are so free to vote out people, and at some stage…

R4: Yeah, what is happening? What is it that they had before, that made them to vote out people? The computer was humanised. It was like a person. It had feelings. It had eyes. It had ears. Unlike when you use it as a machine. Do what you have to do. But it was really nice.

Q: And that gave you a scare?

R1: Ag, but it was just… I don’t think that it happens…

R2: Dit was wat dit vir my lekker gemaak het.

Q: That’s very interesting. I just want to hear if that’s what made it interesting for you.

R: Vir my was dit wat my laat aanhou werk het, en aanhou probeer het, en aanhou karring het aan hierdie goed wat ek nie altyd regkry nie. Want die feit dat, dit was nie net ‘n rekenaar nie. Dit was nie net ‘n skerm en ‘n keyboard nie, en ek het ‘n probleem nie. Daar was ander ouens wat saam met my in die game was. Daar was ouens wat saam met my gesuffer het, so die feit dat daar ‘n gesig agter die skerm was, was vir my positief gewees. Dit was vir my motiverend gewees.

Q: Ek wil net sê, ons is, dis, ‘n uur is amper verby, en ons is by die eerste vraag. Is daar iets wat belangrik is wat ons moet afhandel?

R: Ek wil net sê dis waar ek saam met Hendrik wil stem, want op die ou-end het dit gegaan oor punte.

Q: En jy wys na jouself.

R1: Vir my. Ek het hierdie hele ding gewen, en ek was weg vir ‘n naweek, jippiekajy, maar ek moet nou eerlik vir julle sê, nie vir een sekonde, het ek gedink ek doen dit nou om die naweek te wen nie. Ek het gedink ek doen dit nou om goeie punte te kry.

After all, ja, hulle het eers later gesê ons kan iets wen met hierdie storie, maar dis ook hoekom…

R2: Dit gaan oor punte. Op die ou-einde gaan dit oor punte. Hierdie is ‘n module wat jy moet afhandel, wat jy moet weet…

R3: Jy wil goed doen daarin.

R4: Ja.

R5: En ek dink ook in ‘n mate, ek meen, ek het dit van die begin af gedink, en ek dink ek het dit vir jou ook op ‘n stadium genoem, is, ek weet verseker, die persoon wat gaan wen, is ‘n persoon wat as ‘n beginner, ‘n Web master, as ‘n Web master gekies is. ‘n Persoon met al die, met die meeste tegniese kennis, gaan die persoon wees wat…

R6: Ja, want as die Web master afgestem is, dan sit jy met ‘n probleem…

R7: Dan sit jy met ‘n probleem. Jy kan nie jou Web master afstem nie, al wou jy ook. En, ek dink al die Web masters was hier aan die einde die wat oorgebly het.

Q: Ja, wie was Web masters?

R: Hy was een.

Q: Hoe laat dit jou voel, Web master?

R: Dit was geluk dat hulle vir my gevra het.

Q: O, so dit word toegeken aan iemand…

R: Hulle vra wie kan. Ons het gevra wie kan ‘n Web site maak, en ek het vir hulle gesê wel, ek kan Frontpage gebruik, en toe’t ek, toe sê hulle okay, great, fine. Jy’s Web master. So eintlik was dit ‘n geluk by die ongeluk, want dit was baie ekstra werk.

Q: So jy’t harder gewerk.

R1: Ek dink net dit is nie goed vir my dat die vrae net gestel word, want die van ons wat hierso sit, was meeste van die mense wat aktief was.

R2: Ja.

R3: Ek dink dis belangrik dat daar ‘n aparte groep moet wees, eintlik, wat bestaan net uit die wat onaktief was. But Barbara, you have not been telling the truth. You haven’t said everything that you said to me about your feelings.

R4: Yeah, the main thing I can say about the group, but it depends on…

Q: Miskien moet jy vir haar sê wat jy van praat, want dis baie belangrik dat ons hierdie goed uitkry, want in die volgende beplanning moet ons weet hoe voel julle wanneer julle hierdie goed doen.

R1: You said to me at one stage that you felt there was some racial elements in the game.

R2: I mean, when I talk about the human, I mean the colour inside the human being, so automatically they say… But I'm not talking about race. It's not like I'm saying this in particular…

Q: What specific thing happened in your interaction that made you feel…

R1: They are general… The person is… Support from the people don't … It stay's a person that you… Yeah, that's right. It can feel, it can see, and then answer you… So it's not just something that comes on the screen and you don't know where from, and you answer the question.

Q: Just for interest's sake, did Linda just give this part of the module, of the course?

R: Ja.

Q: When did she see you? Did she ever see you?

R1: One day before the trial. And then one day when we…

R2: But she didn't really tell us what exactly, we didn't know what to expect, even when we had the encounter with her, we didn't know what to expect when we went online.

R3: So she didn't really…

R4: 'n Ander probleem wat hulle nou ook het, dink ek, is, some of them don't have computers. They have to go to an Internet café. Is that true?

R5: Yes, it is…

R6: I don't know if the two of you have computers at home, but I know that some of the other black ladies don't have computers at home.

R7: Ek dink nie dit was 'n rasseding nie. Ek dink meer dit was 'n vaardigheidsvlak, wat daar nie was nie, wat 'n frustrasie veroorsaak het, en ek dink om so 'n ding goed te kan doen, moet daar 'n basiese …

R8: So hulle moet sê, om hierdie kursus te doen, moet jy hierdie en hierdie vaardighede hê, en dan kan jy dit doen.

R9: Dit was vir my een van die grootste negatiewe goed wat gemaak het dat studente nie kon klaarmaak nie.

Q: Kan ek vra, en ek rush dit nou, en ek wil dit nie rush nie. Ek wil net vra, watter vaardighede dink julle moet 'n mens hê as jy hierdie kursus wil doen?

R: Jy moet HTML ken, hoor.

Q: HTML. Wat nog?

R1: PowerPoint moet jy kan doen.

R2: PowerPoint, Excel.

R3: Jy moet Word-vaardig wees. Jy moet Internetvaardig wees. Jy moet 'n rekenaar hê, 'n ou se eie persoonlike rekenaar, gekoppel aan die Internet.

R4: En jy moet 'n e-posadres hê. Ek dink dit is een van die voorvereistes van die kursus…

R5: En jy moet 'n goeie salaris verdien. Jy moet uitkom aan die einde van die maand.

R6: Jy moet 'n baie, baie goeie verhouding met jou bankbestuurder hê.

R7: Miskien moet mens net gewaarsku word voor die tyd dat dit deel van die kostes is van die kursus.

R8: Jy moet laat weet dat die kursus nie vyfduisend rand is nie, maar plus, plus, plus.

R9: Plus, plus, plus, plus.

R10: But then where…everything, you know, I mean, in terms of changing, in terms of absorbing, people who were not there before…

R11: Yeah, but I think, ja, but then there should be some bridging course towards that.

R12: Yes, yes.

R13: You must do something that will get you up to that level that you require. But then they shouldn't allow people onto the course if they don't have that. They should have an entry exam.

R14: Where they should say: B Ed computers.

R15: 'n Oorbruggingskursus.

Q: But for any course at university there are…

R1:'n Oorbruggingskursus.

R2: Ja, jy moet 'n sekere vlak hê , soos as jy wil universiteit toe gaan, moet jy matriek hê, met wiskunde en wetenskap, of wat ookal.

R3: Ja, daar is ook sekere voorwaardes.

Q: Kan ek net weer vir julle vra, ek, Salomé gaan julle baie mooi vra om weer iewers bymekaar te kom, want sy't hierdie inligting broodnodig, en ons het een vraag afgehandel, maar ek dink ons het waardevolle inligting gekry. Kan ek nou net vra: enigiemand wat nog iets wil sê oor hoe hulle die kursus beleef. Anybody that still…

R: Ek is nou weer een van hulle, ek wag altyd vir 'n … ek steek my hand op, maar … Nee, weet jy, ek het toevallig nou hierdie *Survivor Thailand* nou gevolg hierdie laaste ruk, en nou dat ek die hele tyd hier gesit en luister het wat hulle alles gesê het, en deur my gedagtes weer recall het alles van verlede jaar se storietjie, die oomblik wat mense in interaksie met mekaar is, en hulle skuur teen mekaar, is daar sekere emosies en sparks wat gebeur. So alles wat, vir my, wat ek nou weer op *Survivor Thailand* gesien het, van agteraf collaborate, en agteraf gesels oor dinge, emosies wat jy beleef as jy gewen het… al daai tipe goed is alles goed wat ek nou weer gesien en gehoor en beleef het. Ek stem met al daai goed saam wat hulle genoem het: die up's en down's en wanneer jy iets reggekry het, maar ek bedoel dit is maar net so. Wanneer jy kommunikeer en jy's afhanklik van mekaar, en daar's iets waarvoor jy werk, en daar's geld betrokke, dan, outomaties is al hierdie emosies betrokke. Jy werk in die eerste plek vir jouself. Ek dink dit is nogal bepaald van die eerste twee, drie weke. Dit wat Barbara ook daar sê het ek ook gevoel, die eerste ruk het dit gegaan oor survive, en as jy nie kon survive of wat nie, dan het dit dalk vir jou gevoel maar iemand stem jou af, en hulle het dalk iets teen jou, of wat ookal. Maar dit het nie daaroor gegaan nie. Dis soos ek dit maar gesien het. Almal het maar gesurvive. Dit het maar later bymekaar gekom dat ons met die *Messenger* en alles, met mekaar kon begin kommunikeer het, en omdat mens sien maar jy sukkel met iets, en 'n ander ou help jou uit daai slootjie, dan voel jy soos 'n span.

Q: So die menslike, ek dink wat ek hoor is, some people thought that if you do this course, this is a computer course about online learning, and this is about me and the computer and how I work this thing and now, all of a sudden, you don't only have your teacher – you've got all these people.

R: Soos wat jy nou sê, mens skuur met hulle.

Q: As julle, kan ek julle net vra, en ek gaan nou stop. Ek wil hê julle moet vir my in woorde sê wat die emosies was. Soos ons het frustrasie gehad.

R1: Vreugde, angstigheid, keelvol, onsekerheid, moegheid, kwaad – ek het dit gehoor – arm, jy't arm gevoel. Jy't verlig gevoel, ontnugter, lekker kry, verwondering, achievement, 'n gevoel van achievement – ek het iets bereik.

R2: Jaloesie. Ja, ek het gevoel dat ek deel is van iets. Ja, groepsgevoel. Belonging. Kompetisie. Alleenheid.

R3: Ek wil regtig net een ding sê – ek wil altyd laaste … Ek dink as ons kort inleiding gehad het oor waaroor die kursus gaan, wat van jou verwag gaan word, hoeveel ure jy per dag ongeveer gaan spandeer, hoeveel dit jou in rand en sent gaan kos. Sou daar baie ouens nie daai aand in daai ry gestaan het en ingedeel gewees het in 'n groep nie, want daar was baie hang-onners gewees. Daar was Hannes se assistent: daar was tweede jaar studente wat hoegenaamd nie belang gestel het om die kursus te doen nie. Ouens wat daar gesit het, wat regtig in hulle hart geweet het. Marty het geweet sy wil nie deel wees van daai groep nie. Maar die ouens is so half gedruk gewees om daar te wees, en om deel te word van 'n groep. En die feit dat die eerste groepsindeling, wil ek amper vir jou sê, 'n chaotiese starting point vir baie van die ouens was, het 'n groot invloed gehad in deelname later aan.

R4: Ek het geweet daai aand toe ons daar gestaan het, het ek geweet, dat daai groep van ses, was dit net ek en Hendrik wat gaan speel. Ek het daai aand dit geweet. Ek het daai aand dit vir Hannes gesê ook.

R5: En hy't ons ook laat staan, van die ouens wat die meeste rekenaargeletterd en computers het, heel voor staan, tot die ouens wat die minste het. So hy probeer in elke groep 'n baie goeie ou te plaas.

R6: Maar dan moes ons so gebly het, dink ek.

R7: …meer heg…

Q: Ek wil vir julle baie dankie sê. Salomé gaan julle definitief kontak, en, ek weet julle almal werk, en almal het nie tyd vir wonderlike dinge nie. Niemand het dit nie…. Baie dankie.

Annexe C: Transcript of second focus group interview

Keys: Interviewer = Q; Interviewee = R

Q: Let's start a couple of questions. How did you cope in the online environment?

R: Cope meaning what?

Q: Cope meaning what? Who wants to define what cope means?

R: Maybe you could do what was expected of you.

Q: Okay, how could you do what was expected in that environment? How did you cope?

R1: Cope can also be emotionally.

R2: Coping could be behaviour and coping could be emotionally.

R3: It can be academically how you managed your cognitive style.

R4: The work got easier as we got along. The first week was a big shock, and then after that, as we went along, we got used to the type of things that we had to do. It got easier for me.

R5: It got easier.

R6: Ja, emotionally it also got like the load was lighter on me. As we went into the thing, it became easier for me.

R7: No, I coped quite well, except for the time and the finance. That was not something I could cope with.

R8: I don't think I understand the question correctly, but if it's online, how did I cope with the online…

Q: Environment.

R: Environment. Then I'll say, at times it was quite difficult for me. Well, I'll agree about what he said about the first two-three weeks, because I didn't know what was expected of me: what must I do? In what format must I do it? So the whole communication during the first two-three weeks was a little bit difficult for me, but later on when we had the *Yahoo* groups, and I could speak to everybody. Is that what she means? Is that what we have to do now? Ja, but…

Q: So far, you got a little more structured.

R: Ja, then it got easier for me.

Q: How is it that at first you didn't have a lot of structure, and then later on you got a bit more. Is it from your peers that you got more structure, or where did the structure come from?

R: I think it was for me a whole new thing. I was not used to what…exactly know what I had to do, but the first time, first week, ja, second-first week, the form in what the questions was put – because there was always a tribal task and then an individual task – and then when I saw what was the output, how did you have to hand it in, what, everything. Then, next week when you have a tribal task, then you know exactly more or less what to do. What I mean exactly means, I remember the last two weeks there was some tasks that were also not so clear.

Q: Let's just focus on the coping. What do you think of coping? What do you think of the meaning of the word cope? It's actually such a pretty English word. There's not really an Afrikaans word for cope.

R: Can I do it?

Q: If you're able to do it. How were you able to do this?

R: I think it's a very loaded word. You know, it's really not a simplistic thing to me. I don't see it as only being able to academically survive. The communication was a problem, as well as the getting to know the environment, how to manoeuvre…

Q: We already know the difficulties. We know the difficulties, and about the time construction, but how did you cope in the situation? How did you handle this?

R: You know you had to do it.

Q: You just have to?

R: Ja, and why did you have to do it? Because I…

Q: And how did you actually manage to do it? What did you do?

R: I sometimes used my daughter.

Q: You what?

R: I sometimes used my daughter.

Q: In what way?

R: Well, she typed for me.

Q: She typed for you.

R: Yes.

Q: Okay, so you got somebody to do some typing for you. What else did you do to cope? Got somebody to type.

R: Ja, I needed someone to…type fast, because my typing is too slow.

Q: Okay.

R: Well, I sometimes phoned people.

Q: You phoned people?

R: When the whole thing didn't work so, to get final clarity, I sometimes phoned Sanet and Pedro and so.

Q: Even if it was against the rules.

R1: That was very illegal … you know that.

R2: Now is the first time that I've said it, but…

R3: So there should be another session, because then even more would come out.

R4: You can have enough of it.

Q: You asked people to type for you. You phoned people. What else did you do to cope with this environment?

R: First I went to my family, 'cause I was, all the time I was saying how much pressure … I needed time, because time was…

Q: And you have it difficult in your family? What happens there?

R: No, my family just helped me.

Q: They were helping you?

R: Ja, but I'm the person, with my studies, I'm like a manager. You do that, and you do that. That's the way I am.

Q: So you create a substructure for the family to be able to do their … What else did you have to specifically do, did you have to do to be able to cope with this difficult situation?

R: I really had to, sometimes between two classes, in an hour's time, get back to work. My computer was stolen from my office at that time. So I don't want to, today,

get into my own personal difficulties at that stage. It was horrendous. So it really meant rushing.

Q: So the fact that you didn't have a computer…

R1: Ja, you know, where I was…

R2: Can I just say something that didn't come out last time? When we started this course, we actually had two courses together. Am I right? We came together on Thursday evenings for Rolf's databases, and then, after about three or four weeks, they said that we are going to stop this because there is so much work in the *Surfiver* module. But I think it was one of the reasons why we stressed so much during the first few weeks – because it was with something else.

Q: And the something else never worked.

R1: Yes.

R2: Exactly.

R3: We sat here for three weeks, and every time there was a … We were supposed to make a database together with the *Surfiver* thing. The second part of the module, the second part of the mark, would be an online portfolio of ourselves.

R4: And apart of the module that we were doing, we still had a task on something else.

R5: Yes, on something completely different, which we worked in *Dreamweaver* and Access databases. It didn't work. It never worked, because the lecturer couldn't get it to work. So that was a lot of stress, because you knew that half of your mark now hung in the balance, because of something that doesn't work.

R6: But if it was only the mark as they put it - it was time that was going…

Q: I wasn't asking you…We again need to focus. We're again talking about other things.

R: Ja, sorry, this doesn't fit there.

Q: No, I want you…but it's…

R: It contributed to the stress.

Q: Yes, I'm going into that, because I need to know that. What did you do to cope with the situation? You phoned people. You gave your family tasks to do. What else?

R: I changed my lifestyle.

Q: How did you change your lifestyle?

R: Well, I had to sleep in the afternoons, because I have a disabled daughter. So when I come home from school, I had to, you know, give her the attention and things like that and then I took a kip for a few hours, and then I got up at seven o'clock and then I went online. And at that stage I couldn't work, so, you know, until about nine o'clock or so, we had great fun with her, you know. She couldn't understand I was talking to the computer in friendly terms, when in fact, I was talking to Gérard, and she just couldn't understand this. She knew that I was talking to the computer. It's rather unflattering, and, but then when she went to bed, I actually literally started working from eleven o'clock 'till three o'clock, four o'clock in the morning.

Q: So you had family difficulties. You had to be around your home at times.

R1: It wasn't only family difficulties; it was the money thing as well, because, if you work at home, you work at night.

R2: After seven.

R3: I worked in the morning. I couldn't work at night.

Q: So you had to either stay up, or…

R1: But I mean, we had a day job as well, so, I mean, there's not a chance for me to work even for one minute in my work.

R2: No, I had to reschedule my life as well, around my baby and my wife as well, so I also started working at ten o'clock when they went to sleep.

R3: Ja, you just stopped sleeping.

R4: Each day I … because I need to read or write, because as I've mentioned before, there was the other part, the database, and the dates were coming in, and I didn't know on which day I had to bring in what. So I made this table just to…

Q: Oh, like a project plan for you to be able to finish the stuff exactly…

R: And I knew I was…

Q: It's ten minutes. Okay, anything else on the way you coped? We said…

R: I just want to say, sometimes we did not cope.

Q: Yes, okay.

R: Something that I didn't mention so far: when it started, I had flu. The flu developed into pneumonia, and my kids were mad at me, because I was getting up at night. They were telling me, 'Ma, you're going to die.' But you know, there was no choice. You had to … I did it.

Q: So, if I say the way you coped was to join others, organizing your family, organizing your time, getting people to type for you, that made it possible…

R1: Changed lifestyle.

R2: Yes, to get everything that you did to cope.

Q: Allright, let's move on. What support did you get?

R: Moral support.

Q: Moral support. If you talk about moral support, what …? Describe it.

R: When I found my daughter – I'm so tired. Or something – they understand. That you could talk to them. Ja, that was nice. And our support from your tribe members as well. That was …

Q: What type of support did you get from your tribe members?

R1: I think moral support as well as cognitive support sometimes.

R2: I would say that I really got tremendous support from the mentor. We used to talk on the chatterbox thingy …

R3: Linda, late at night, you know, it was amazing -

Q: Late at night she was –

R1: Ja, one o'clock, two o'clock at night.

R2: Actually that is something that, if she does that again, you know, some of those things wasn't saved, of the talking.

Q: On that little –

R: Ja, that little, on that little box, and I think that out of that, you could have got a lot of info. Because really, you know, she helped a lot.

Q: What other support did you get? From your family; you got moral support from your colleagues…

R: We got support from outside. I used to e-mail my friend back home in (country) constantly. He used to support me. I had to make a Website, and then there were things I had to put in –

Q: What did you say that he - what did he do?

R1: During the program –

R2: A program to create web pages.

R3: You had to e-mail…because who knows *Dreamweaver*? Who knows how to put –?

Q: So a lot of your support actually came through the Internet itself?
Yes.

Q: In what other ways did you get support, and from where?
R: I got – again – support from my daughter, but because she enjoyed it. What do you call it when you can get immunity? You had to download a game for example, and I didn't even want to do it, but because she was interested in it, she did it, and she showed me how to do it.

Q: So you got your family involved?
R1: Yes, definitely.
R2: I would go so far to say if you didn't have the support of your family, you wouldn't be able to complete this. My wife never – I must say this – my wife never complained, only at the end did she complain about the telephone account, but she understood that, or she didn't complain that I worked at night, until two, one o'clock, two o'clock in the morning. And, if she complained then and moaned and so on, I don't know if I would have finished it, because it just went on and on. If she complained today about me working at night, she would complain tomorrow and the day after, and and and…
R3: I want to say I did not have so much support. My only support was my internal motivation. That was my only support.

Q: And how did that support you?
R: I really wanted to do good in this M Ed course from the beginning.

Q: So you set your target: you want to do good, and that was your motivation.
R: Ja, I knew I wanted to have good marks for this module as well, so even if I had to stay up until three or four o'clock or whatever, until I understood the task or whatever, I just had to do it. That was my internal motivation.

Q: So you got your support from yourself, from your motivation and that you set a target for yourself. You got it from your family and from the group.
R1: Understanding, basically.
R2: Understanding, moral support…
R3: And another thing…once the web site was on air…

Q: The fact that they gave you more…
R: Ja, it was growing all the time.

Q: The fact that it was growing. Tell me more about the colleague support.
R: I had nice support, because you know, Hendrik is a, you know, we work in offices next to each other. Moral support, but not – we didn't have any time – we, our programmes didn't synchronise. We never had time to help each other academically, but, you know, you could make a remark.

Q: Moral support, and somebody understands.
R1: Ja, it was nice for me. It was nice to know there was somebody close, because I was also like Pedro. I was really isolated at home. I had to just get on with it.
R2: Ja there's that question like something like what is an overlay or something. Then there was a message from Gérard that said: do you know what an overlay is? I said no, no. Then he said: I also don't know. Did you try this? Did you try that? And then suddenly you don't feel so stupid at all, because I always think that if I don't get something right, it's me that's stupid, or … if I don't do something right.

Q: So, the conversation –
R1: Ja, Joanita said: ja, but try this. Then suddenly you carry on again. You get motivated again to carry on.
R2: You do get some subjects that you had to do summaries … because nobody … but because you were in press of time to do the next thing. So then what's the use of doing these summaries? And the subjects were very important. But nothing was done with that.

Q: You are saying that you did that?
R: Yes, I did the summaries.

Q: Okay, I'm just going to focus you. I'm asking about the support that you got. Would you like to bring that into relation with the support?
R1: No.
R2: I want to say something. I don't know if it has to do with support. Three of us, that's me and Karel and Camilla, did an HTML course in April, before this, and it helped tremendously. We were very glad that we did it.

Q: So the fact is that if you had some experience, that was also very supportive. That actually got to do with the coping more than the support.
R1: Ja.

R2: Well, I phoned the lecturer once, and asked her: how do you do this? Can you help me? The person who presented the course to us. So I got some subjective support.

Q: So that was support that you had back at home from?
R: Yes, yes. And that, I think, you know, kind of bound us together, and that was a support for us. Because my sole support came just purely from my colleagues. From the people I studied with. Nothing and nobody at home knows anything.

Q: Tell me about the support that Linda gave. You said that she was available after hours.
R1: Ja, sometimes in the evening at eleven or twelve, when you click on your *Messenger*, and then Linda's also on. She was on all the time, I think.
R2: I think she never went off.
R3: You will just say hello, and then she will say back hello, how are you? And that just helps.

Q: The fact that you knew that she was –
R: Well, I've written an article on Linda's support, so I won't repeat the whole article here.

Q: So there must be something interesting that you can tell us.
R: Ja, well, in general I can just say that when I, um, -what's the academic word for it? – I used a lot of taxonomy. It was just an academic exercise for me at the beginning, to see if I understand about – it was about the motivational value of her messages, or her whole approach to this. And it was very – it came out very positive in the end. I almost sometimes got the idea that she studied some techniques before the time. I don't know if she did that.

Q: What techniques? To be able to do what?
R: To motivate the students.

Q: What techniques would that be? What did she do that was so supportive?
R: It was basically – there was – after studying this thing, it almost came over – maybe I'm incorrect. Maybe I was just getting subjective now, because I thought I was getting to know the subject matter now. But there were really times when it is as if she – if a student say this type of thing, I will say this type of thing. You know,

almost like a recipe. I don't know if it's true. I'm not saying that she did that. It could be that -

Q: So it's almost as if she was in control of –

R1: She was definitely controlling this whole thing, I think.

R2: Yes, it started of the first week. We did a task, and then she saw us, and she handed out a – I can't remember – a bottle of Game, or something. And every time you had to do something, then she rewarded you with stuff. And she had all these – what do you call these icons of instant smiles, smiley faces and everything. If she sent you an e-mail, she said well done. I said one time I had the highest score. She sent me an e-mail and she said well done Pedro, I'm so proud of you, with a smiley face and whatever. Those kind of things.

Q: So you actually say the feedback that she gave was supportive?

R1: Yes.

R2: It was supportive, but it was like readily there. Sometimes I got the impression she got them listed. If a student do this, I will do this. I don't know. Maybe that was the job. I don't know. I wouldn't know. It was just an observation that I made, but on a scale, it measured very positively.

Q: The fact that she was available, the fact that she kept you in control.

R: Ja.

Q: The fact that she always gave feedback.

R: Ja, and if things went wrong, I don't know how you guys experienced it, I was really studying the text of the messages, and not the 'asking myself how I felt about it'.

Q: Anything else on support?

R1: Just you didn't have to wait. Even if you sent her an email, you could know the next time you checked in, there would be a reply.

R2: She was there all the time.

R3: She was there all the time. So that she knew what she was doing. It was amazing.

Q: It was amazing?

R: I mean what she was doing, what type of tasks she gave us. She was in control all the time of it.

Q: If there's something you can think of, feel free to come back to anything you can think about. We'll just come back to it. The people who finished, what made you stay?

R: I enjoyed it.

Q: Why?

R: Because we learnt so much. We learnt a tremendous amount of work. New things.

Q: That made you stay.

R1: Ja. Painful learning. It was no game. You know that, hey. It was no game.

R2: It was like a competition. Because I'm one of those people: when there's something up for grabs, I really want to do well, and hope that maybe in the end, maybe you'll just soul survive and win the game. So, in the beginning I thought that the guys or people who know, or who don't know those things, are going to be voted off in the first week or two. But some way I survived, and in the end when there were only what four, five, six left, then you – maybe it gets close – so maybe you can wait.

Q: So the fact that you got competition.

R1: And the fact that it's my marks. I really wanted to do well.

R2: I carried on in spite of the fact that it was a competition.

Q: There's something about –

R1: Yes, I hate a competition.

R2: I like competitions.

R3: No, I isolated myself from the group things and just carried on with the individual things, and made sure that I get enough marks for the individual ones.

Q: So you're not competitive?

R: No, I'm not a competitor.

Q: So the individual tasks that you had to do, that was motivating for you?

R: Ja.

Q: What tasks did you have to do that was motivating?

R1: I can't remember.

R2: The writing summaries.

Q: Writing summaries?

R1: The reading and writing.

R2: Your own web site.

R3: Ja, your own web site.

R4: Ja, you had to put a scroll bar on there, and then you had to put the sound on it.

R5: We can't say that it was less technical. It was as technical as the group wanted. So there was no – there wasn't a difference in that sense.

R6: I did the exact opposite that Marietjie did. I don't like competing either, but I used more time on the group thing, because I didn't want to let the group down. So eventually I didn't have time to do the individual things, because I was now so trying to get the group, you know, trying to do my part for the group thing. And the only reason I did that, was because I didn't get any rope at all.

R7: If it weren't a competition, and only working in groups together, then it's the same thing that you say now. The group. I wanted to do my share, and eventually I failed, because my computer crashed, and I voted myself out.

Q: Anything else? Anything else that made you stay?

R1: I think maybe one thing, in the end, say, people that finished, that completes something, are people who don't want to – it's not people who give up.

R2: Yes.

R3: They don't give up on anything.

Q: So it's a way of life?

R1: It's a way of life. I mean I can't see it any other way. Whether it's the competition that drives you, or whether it's the non-competition.

R2: Also –

R3: But I didn't finish it.

R4: Yes, I loved it. It was the most creative module I've had last year.

R5: The idea fascinated me, but I hated it.

R6: Also, by the time you wanted to bail, you've done so much, it's really not worth it.

R7: You will not give it up

R8: You will not give it up.

R9: You put in too much.

R10: Not after doing all of that, I will not give it up and have to do it all again this year.

R11: Ja, the first three weeks it was climbing, and we came to a point that the rest worked so hard, and we were climbing. So, at that point –

Q: If you say climbing, what do you mean by that?

R1: It was hard. It was a hard part. The first three weeks were very hard in terms of all the tasks we had to do.

R2: Lots of work, and lots of new work.

R3: And we knew, the first week, I think, the next day … was about to end. It was about tree or four weeks that we dropped the other one.

R4: Yes, something like that.

R5: More time.

R6: It was very hard right through the whole thing, and if I had to compare it to anything, I would say it's like white water rafting – what do you call it?

R7: White river rafting.

R8: That you're on the river, and there's no way that you can get off, because –

R9: It's very exiting.

R10: It's painful. I mean I, my muscles, my feet were swollen, my back was sore.

Q: So it was almost like a physical thing?

R: It was a physical thing. It was a physical challenge, a tremendous physical challenge.

Q: What made it such a physical challenge?

R1: I was sitting in front of the computer and struggling.

R2: We were doing this all the time. Your - I mean, the mouse is moving all the time. It's difficult. It was the challenge in it.

Q: That it's a physical –

R1: And filled, because you know you've got a deadline, and you've got to get it. Terrible.

R2: And you know, you worked on it all the time.

R3: I dreamt how to do it. Thank you very much.

R4: And also…

R5: But even at work, you'd have this thing in the back of your head all the time.

Q: So the motivation that you got, was that it was there all the time.

R1: Yes.

R2: You know, if I play golf, and I play eighteen holes, in the first sixteen holes, I play very poor. I hit away twenty balls. Very poor. Then I play one hole excellent, and I get the birdie or something. That made me come back and play golf again next time.

That's the way golf is like. So if you sit there and you struggle and struggle for two days or whatever, and then suddenly you get the scroll bar working … it's like a drug.
R3: Ja, it's a reward that you get.
R4: But it's not a reward from other people.
R5: No, no.
R6: It's a reward from yourself.
R7: I can do it. The technical thing working –
R8: Ja.
R9: I didn't give up the marks or anything I had there.

Q: So it had to do with different things that motivated you.
R1: Definitely true. And another thing: at that time, my parents were … and I found myself … one subject was … in my father's background, he was an engineer. And he was hearing me saying … I got the meaning of the verb … he was starting a conversation that was about the –
R2: So, it creates a conversation, the fact that you had a conversation –

Q: Ten minutes again. Anything else on what made you stay?
R1: I think for me it was to show my kids what their ma could do. I'm bragging about it. Have a look. Look at this.
R2: That's true. You know, when you found some grand people and said to them listen, you have to come and see what I got right.
R3: Ja.
R4: No, I sent my e-mail of my Website address to a lot of people, so everyone could go and look.
R5: It was also about the external feedback that you got back, it was important that it was external.
R6: External reward.
R7: External reward.
R8: Absolutely.

Q: Can we move on to the next question?
R: Yes.

Q: The people who did not finish, where did you give up?
R1: There aren't any here.
R2: I don't think there's any -

Q: There's nobody in this group?

R1: No, we all finished.

R2: Nee, nee, no, Gérard.

R3: Nobody, nobody?

R4: Misu gave up.

R5: She was –

R6: Oh ja, you're right. There were –

R7: Sharon gave up.

R8: Did Sharon?

R9: Ja, she told us last time.

Q: When did they – you don't know when they first gave up?

R1: They gave up the first week.

R2: I think the first week.

R3: Most people fall out the first three weeks.

R4: I thought we talked about it last time. I think it's because they had to form a group on their own, and no one knew – nie een van hulle het geweet wat om te doen nie.

R5: I think it was a technical problem.

R6: Ja. I just want to say, the only thing that I think why most of them stopped, or whatever, is something maybe like HTML or whatever. They did not have that programming or technical know-how.

R7: And they had to form a group and do it.

Q: So the fact that they didn't have that –

R1: And there wasn't a leader really, so that was the flaw in the game for me. Because the baddies fall out in the beginning.

R2: Not the baddies.

R3: Oh no –

R4: Strugglers.

R5: I mean the people with the –

R6: Swakkeres.

R7: Sorry, ja, it was the wrong word. But, um, and then obviously there's nobody strong enough to take the lead or to help them. It's the flaw in the game. If you want people to complete it.

Q: So the flaw in the game would be –

R1: Ja, I think so. I don't know how –

R2: I think so.

R3: But then on the other hand, I also want to say that none of those things that we had to do – I don't know, if one of them asked me about the HTML, I would have given them, because I didn't know HTML. I didn't go to the course. I found that Netscape has a composer that works like *Microsoft Word*. And you work in *Netscape Composer*, and you save it on your HTML file, and you put it on your composer, and it looks wonderful.

R4: Gérard, but you know, there are really people who don't – even if you give them that Website, will not –

R5: Got an excellent background.

R6: And that is what we said last time. For a game like this, there has to be some kind of basic –

Q: Entry level.

R1: Ja, and it was definitely misleading. If anybody has been honest enough to tell, a lot of people would not have started, I think.

R2: Or they would have done the HTML course during the holiday.

R3: I would have done that. If I would have known it was so tough, I would have done that HTML course during the holiday.

R4: I knew it was the thing to do, but I –

Q: Next question. What are your reasons for choosing this course?

R1: It wasn't a choice.

R2: We had no choice, not for this one.

Q: 'Cause Salomé said that you've chosen what you wanted to do.

R1: No, we had no choice.

R2: At the end of the battle.

R3: That's a quick question.

R4: But I think if people had a choice, then I think everybody would maybe, except for one or two –

R5: Pedro but why?

R6: Because we didn't know what to expect.

R7: Exactly.

Q: Next question: how do you feel about online communication? And then: did you stick to the rules?

R1: No.

R2: Pedro didn't stick to the rules.

Q: Can I ask you: what did you do except for online communication? What did you do? How did you communicate?

R: Can I say when I phoned? I phoned. I used the telephone right at the beginning, before we had *Messenger*.

Q: Yes.

R1: Because with *Messenger* I could type hallo Sanet, hoe gaan dit met jou? And she'd say: dit gaan goed, maar ek sukkel hiermee. So that circle of communication to me is very important. I can't send an e-mail to her and tomorrow get a reply and I can't remember what it's about. So as soon as we started using the *Yahoo Messenger* –

R2: It was better.

R3: It was wonderful. What I would suggest to her is to introduce *Yahoo Messenger* first thing next time.

Q: So it's about, we talk about asynchronous communication.

R1: Is she really considering to repeat this?

R2: And e-mail. I send you an e-mail. You get it tomorrow at work. You send me some back. I'll get it tomorrow night.

R3: What's bad about that is that you would get thirty e-mails every evening. That's bad. And you don't know which one's to read and which ones to ignore. Some people will just say: Ag nee, dit gaan sleg. And someone else will say: ja, met my ook, and you'll get all this e-mails.

R4: And you also didn't have an evening to wait. I had to do my stuff, like Michelle said, if I don't do this tonight, I would sleep two hours less tomorrow. So, instead of waiting for Sanet to email, or Pedro to email, I would phone them.

R5: Yes.

R6: And say listen, I'm struggling with this. Help me quickly.

R7: Get on with the task.

Q: So how did you feel about the synchronise communication?

R1: I needed it.

R2: Ja, that was nice.

R3: I can't help to say where they had that *Interwise* meeting we also did one evening, that was one of the highlights for me.

R4: That was the whole course.

Q: *Interwise* was that where every body could –

R1: Yes, communicate with each other.

R2: Soos 'n groot um –

R3: Well, I would like to say, at that point, I hadn't install …, so from my corner, there was no – I could hear everyone, I couldn't see at all. So that – and I talk about it, because that's a question. You have a class, a normal class, where a student puts up his hand all the time, but nobody wants to listen to him. What's that? And it's not only because – well, the thing is, it's a very nice instrument, but the communication lines are not ready for that.

R4: It's a difficult problem.

R5: No, it wasn't difficult, it wasn't that.

R6: For me it was a technical problem.

R7: It's more than that. You have this wonderful … this automatic … where you haven't got computer … and you try to teach the children with the new … it doesn't work. And you have to take that into consideration when you talk about e-learning.

R8: Everybody doesn't have the same technology. Everybody doesn't have the same computers.

R9: Exactly. It's like telling us let's use all *Telkom* communication, and online, and one is not working with *Telkom*. It's not working. Again, you won't accept that.

Q: So there were specifics –

R1: Ja, I also had a problem, I couldn't –

R2: *Telkom*.

R3: *Telkom's* the problem. Ja.

Q: What about *Telkom*?

R: She lives in Silver Lakes, so it's all the way out to town, and out of town. So she always had a problem with that. Even when I spoke to her on *Yahoo! Messenger*, she would break up. But then in town, it wasn't a problem.

Q: So the technical problem arising from online communication. Tell me more about the asynchronous communication. What did you experience?

R: Also, we all communicated through *Yahoo! Groups* from the beginning. So if you put in a question, everybody does the question. And in a way it was nice, 'cause you got twenty replies. And then, after a while, towards the end, it also didn't work anymore. Nobody – if you saw an email that wasn't specifically for you, you deleted it.

Q: And how did you react when you got email that wasn't specifically for you?
R1: I didn't really mind. I just didn't read them.
R2: I just didn't have the time to even open them. If I recognised that it's something that's, you know, that's got to do with me –
R3: And then I think sometimes you missed important messages because you don't read all of them.
R4: Ja, you do.
R5: For me, in order to understand what's happening, I felt I had to open every e-mail and every message. I think it's a type of culture thing that you develop.
R6: I thought that I got a lot of information from reading some of the other e-mails. I think they didn't know that. If they knew that –
R7: Also you had people anticipating problems that you haven't encountered yet. You may be a bit slow, and somebody else is ahead of you and says: listen, I've got a really big problem with this scroll bar thing. So you would get a reply on a problem that you're going to run into before you even have the problem. So that helped a lot, I must say.
R8: That helped a lot, yes.
R9: Yes.

Q: So the information and support that you got from online experiences.
R: Yes. 'Cause synchronous you could ask a specific question to a specific person, and get a reply now, and carry on with your work.

Q: Can I ask you about the other ways of communication? In what other ways were you communicating with each other?
R1: We visited each other.
R2: Well the first four lessons when we – the first four weeks when we came here on Thursday evenings, we spoke.
R3: People visited each other. That's it.

Q: You started to visit each other.
R1: Ja nee, I think my wife thought Sanet was my skelm.
R2: Something that was really frus… – not frustrating, but was just part of the game, is I didn't think we stayed in the tribes as much as we were supposed to.
R3: Yes. In other words, we got support from people from the other tribes, and we supported people from other tribes, because they were online at that time when we were online. Because it was frustrating sometimes that you'd ask something of a tribe

member, and that tribe member is not online at that time, and then you are just thanking God that the other tribes' members are replying.

R4: I must say that was a very positive aspect for me from the way the whole thing worked. That there was sharing, you know, outside –

R5: It didn't go about the tribes.

R6: No.

R7: … when you communicated with the other tribes.

R8: Another aspect was the competition between the tribes. Yes, I think so.

R9: It was supposed that you would do …, but it was never said.

R10: But it was never like that, really, between the tribes. There was a - a competition – a tribal competition.

R11: You know what the thing was also that I'm thinking of now, in class, we were friends before we did this.

R12: Yes.

R13: You must remember, this was our third module, so by that time, we knew each other.

R14: Yes. We went through deep waters before this already.

R15: But we weren't friends specifically, I think, like we – I didn't know Pedro and Bettie, for instance, and Sanet and so on. And Gérard as well. And in this time, we kind of re-separated, and we got to know each other there.

Q: So the rules that you were breaking, the kind of breaking of the rules was phoning, visiting, extensively.

R1: Not extensively.

R2: I wouldn't say so extensively. I want to say, what I saw is – well, I don't know what everybody did in the dark, but what I know with my knowledge is that the breaking of the rules is maybe twenty percent of the time. Not we break the rules all the time, we chat all the time on the telephone or whatever. It's just sometimes if you had a problem.

R3: I just want to say, a lot of the talking if we did talk, was more in a supportive way than in a technical, academic –

R4: Ja.

Q: There was more support.

R1: Yes, certainly.

R2: And then also, I think the work was a little bit too much, so there were things of the game that we were unable to do, for instance, I don't know about the other tribes, but the tribal council that we were supposed to hold.

R3: Ja.

R4: No, nobody did that.

R5: You never did that, because there was just no time for a tribal council. And I think that's a pity.

Q: Okay, we're focusing on feelings. We talked about in what way did you break the rules. What feelings did you have when you had to communicate online only, and that was actually how you should communicate? What feelings did you experience having to do this?

R: In the beginning, definitely uncertainty.

Q: Uncertainty about what?

R1: About not knowing what was going to happen. Never having done this before.

R2: And stressed.

R3: I felt stressed initially.

Q: And how did you experience the stress?

R1: Sort of being afraid that I'm not going to cope. I won't be able to do this thing.

R2: Feeling afraid that you can't cope.

R3: Ja. I think what online situations do to one, is it really impact on your style of learning. Therefore, we are supposed to, in an academic way, support each other. If you are a person who – you learn through audio or through text, it's fine, but if you are a person who actually should be shown how to do this, you know, it don't work for you.

Q: How does that –?

R1: That will, I think it will increase your uncertainty, your anxiety.

R2: I think the main thing is you're alone.

R3: Ja, isolation.

R4: The isolation is tremendous.

R5: Especially late at night.

R6: You want to work together with someone else in every task. Just to do it with someone else. To talk to them.

Q: Other feelings?

R: I think one feel exposed when you are writing the emails and even the letters, because you have to put more thought into what you're doing, because you feel maybe I'm asking a stupid question or I'm just not understanding the problem, so now

I'm asking somebody else for the answer, and, so. I had a feeling, you're kind of feeling exposed as well.

Q: Any other feelings?

R: I think initially, I was a lurker, and later on, you started to –

Q: So how do you describe the lurker? How does one feel –?

R: No, not like that, you know, I was afraid.

Q: Afraid?

R: Ja, like Camilla said, to expose yourself. I'm going to make a fool out of myself by doing something or saying something –

Q: Any other feelings that you didn't mention?

R: I want to answer that. The online *Telkom Messenger*, for me, it was a checking thing with my spelling mistakes. So I was using Word, and while I'm on Word, checking my spelling mistakes and then cut and paste, where the others were writing to the *Messenger* right away.

Q: So how did you feel when you had done all these actions? What feelings did you have?

R: The same feelings that I had from the beginning. I have a problem with that.

Q: Do you feel exposed?

R1: Not exposed. It's as dilemma.

R2: It's a disadvancement.

R3: I think it's a disadvantage. I think that's the …because specially, I think, because you had to do it in English, and you're Afrikaans.

Q: That's true...Can we move on?

R1: How did you, was your online behaviour different from face-to-face behaviour?

R2: I think it saved a lot of time in a certain sense. One would spend more time when you start talking about other things also.

Q: So when you were seeing somebody face-to-face, you would spend a bit more time than you would with communication online?

R1: Ja

R2: Ja, I mean, even if it went over into the moral support thing, but now you've got to –

R3: It's to the point.

R4: Ja, to the point.

R5: It's like doing an SMS on your cell phone instead of phoning.

R6: Ja, absolutely.

R7: With the SMS you just send the message, and you don't have to talk and talk and talk. You don't have to say: hallo, hoe gaan dit? Nee, dit gaan goed en met jou?
I think cognitively it's a very um, taxing thing to do, because now you must really make sure that you are using your words and everything very economically.

R8: It's nice to do things like that when you don't know the person …at all…let's say you tape-record…

R9: I think so, because I never met Linda. I was absent that day that she came. I never met her. I got her *Yahoo* thingy. I can't remember meeting her.

R10: I think it's easier when it's within the same culture, because then you can go, you know –

R11: …I was on a course in Cape Town, so I couldn't work. I think you mentioned it earlier. The fact that we knew each other before this module, helped a lot, even, we didn't have to…

Q: So the messages were short and to the point. How else did it differ from face-to-face communication?

R: I would say face-to-face communication for me, was emotional, because now I can say: Joe, please help me. Ja, ek het ook dieselfde probleem. So we can, we can motivate each other. So face-to-face for me is emotion.

Q: How do you express emotion on an e-mail?

You can use the face and all those type of things, but here, I can go and cry on his shoulder or whatever.

Q: What are you supposed to do on the computer for emotion? Emoticons? Or …

R1: No, emoticons.

R2: We were supposed to use that for emails.

R3: Ja, you can use that.

R4: You can use that.

R5: Otherwise, you just type words, you only have words.

R6: Also, you don't moan and groan and so so lekker over an email.

R7: Ja, I can not express myself over an email.

R8: You know how to say it, but sometimes you just, you just need to go to somebody and just aflaai. Just say: is't horrible, no. And then you pick up, and you go on, and you're fine again.
R9: It's not spontaneous, the email.
R10: No.
R11: Ja, the email's very clinical.
R12: I can use fifty emoticons. I will still not express myself.
R13: It's true. I remember that I phoned Pedro once, and ons het altwee vir mekaar vertel: kyk, nou stop ons hierdie ding. Ons is nou moeg hiervoor. En ons het -
R14: Ja, and afterwards you felt much better.
R15: Ja. You can go and look at your email.
R16: But I think one of the most important things for me about communicating on the e-mail, is the exposure element. Because I can imagine talking quite emotionally. I'm not familiar with using Word. It's not because I only have the words, it's the exposure thing. I'm gonna kill Gérard now. I am so frustrated. I am really sick, but I don't want to tell it to the whole group. I'm not even talking about the whole tribe. I'm talking about the big scene, you know.
R17: We look at things that are the same differently … than the things that we do. That's why, most of the time, we don't write things because we are afraid that this is … this is evident and so on.
R18: The thing is here, it's basically misinterpreted, like I can write 'really' in big letters and in brackets, and someone will understand it, and then it will be offence like -. But if I do it with my body language, then it won't be offending. So, there are all kinds of ways. Because of my body, you can look at the situation as if it is a positive situation and everything, where on my e-mail, it won't be the same.

Q: What was the stage where you could hear each other?
R1: Ja, that was the *Interwise*.
R2: And also *Yahoo!.*
R3: Yes, that's an *Interwise* …where we could talk to each other, and you could hear.
R4: Ja, we could, with *Yahoo Messenger*.
R5: Ja.

Q: And how did that differ if you think of just …and the voices?
R1: We spoke to each other, and I thought it was quite fun.
R2: It was fun.
R3: You were getting closer.

Q: In the tribes you were getting closer?

R1: Ja, to the normal communication.

R2: But again, I would speak, and it would take three seconds before I could get something. So, again, this was for how are you? Are you still coping? No, it's fine. Lekker slaap. You know, you would say to somebody at twelve o'clock at night: lekker slaap. But the technical stuff, how do I do this? was still –

R3: No, you can't

R4: You couldn't do that.

R5: An e-mail or a - not really face-to-face with the *Yahoo Messenger*.

R6: Or the illegal stuff.

R7: Ja, or phone calls.

Q: Any other information that you would like to give on how your communication differed from face-to-face communication? I'm going to ask you for the last time. Is there anything that you would like to add? How did you cope in an online environment? Anything that you would like to add?

R: There's one thing which is important. Let's say you want to send the same exercise to two different schools. I think it's not the same situation as with the master degree where you have to do this module, there's nothing democratic about the decision, where we do it, or not, or whether we cope with it or not. We have to cope with it, so from the beginning, you can't take this … attitude and go into another environment and say okay, this will be the same … because here, from the start, you had to do that …

Q: Anybody else that would like to say something about coping? Um, support, anybody want to say something? … um, what made you stay? … motivation? Anybody want to add something to it?

R1: I just want to add something about staying, and that is the fact that we didn't have time, I didn't have time to think I could quit. I just didn't have time. You know, I was in this thing, and I never stopped to think –

R2: Didn't even consider it.

R3: I didn't even consider it, because there was no time to consider that that was – could possibly be an option. Yes, and that they didn't vote me off, you know, and so on.

Q: Can I ask something about support? I've never thought of this before. Did any support come from Hannes in that time?

R: Not that we expected it.

Q: Hannes? What does Hannes do?

R1: Hannes is the co-ordinator of the whole – Professor ……

R2: Lector.

R3: Okay, so you were asking about his role in support.

R5: He was once or twice – you could say never –

R5: Just to say keep hang in there.

R6: Ja.

Q: Linda was your support.

R: Ja, he stepped out of the situation completely.

Annexe D: Explanation of the CyberSurfiver Game

Please note that Linda van Ryneveld, who was the lecturer for the module, provided the explanation of the *CyberSurfiver* module. This Annexe forms Chapter 4 of her thesis called: *Surviving the game: Interaction in an adult online learning community* (2004).

1. Introduction

In this chapter, I will describe the design of the *CyberSurfiver* module on which this research is based. I will explain how the *CyberSurfiver* game worked, and how the various game elements, such as the Immunity Challenges and the Grand Prize, were introduced to the learners. The context for the case is therefore described below. This description situates the case within the online learning environment.

2. The case study: CyberSurfiver

The case study upon which this thesis is based is the facilitation of a particular module that is presented as part of a two-year tutored Masters degree in Computer Integrated Education at the University of Pretoria. The learners who enrolled for this module are all working adults who have completed studies in Education and who range in age from between 23 and 62. They all intend to complete the degree on a part-time basis while they continue to work full time. The module on which this study is based is entitled e*Learning*, and it was presented over the period of six weeks between 18 July 2002 and 29 August 2002. This module is compulsory for all learners who register for this degree.

The module was presented almost entirely online – the only exceptions being an introductory contact session at the beginning of the course, an emergency tribal council after the first chaotic week, and a closure session right at the end. From a pedagogical point of view, one might say that the module was both learner-centred and firmly grounded in a constructivist philosophy, even though a number of instructivist elements were included wherever and whenever this was considered to be necessary. The presentation of the module simulated the spirit and atmosphere of *Survivor*© – an award-winning reality series that has been shown on national television.

Apart from differences in location (which, in the television programme, is usually an exotic site in some remote,

often inhospitable but beautiful part of the Amazon, Africa or some country such as Thailand, and which, in this study, was Cyberspace), the researcher (1) applied similar rules to those that were applied in the television reality programme, and (2) arranged for analogous events to take place in Cyberspace.

One other difference is that we called our game '*CyberSurfiver*', with the emphasis on the 'surf' part that relates to the activity of browsing the Web. While the reality show offers the final survivor a dazzling cash prize of $ 1 000 000, *CyberSurfiver* managed to offer a rather more humble but nevertheless very appealing weekend away for the winning *CyberSurfiver*.

As the module was experienced as

> *six weeks of real torture*
> (Anonymous survey response)

and many of the learners spent a considerable number of hours behind their computers in order to complete their challenging assignments, they frequently experienced conflict at home with family members who felt neglected and abused because of the hours that they had to devote to the project. As one learner put it:

> *My wife is talking about divorcing me (money for my child's clothes used for the* online *discussions).*

The weekend away for a family of six at a local resort was therefore perceived as a most desirable incentive.

The other significant incentive was the marks that were awarded for the module and the fact that the module earned the learners credits as he or she worked towards obtaining the degree.

All interactions for the duration of the module had to be carried out online (on the 'CyberIsland'), and interpersonal telephone calls or any form of face-to-face contact between learners were strongly discouraged. We do know, though, that learners who experienced technical difficulties in, say, ftp-ing their web sites to the server on campus, got together with more experienced learners on a number of Saturday mornings in order to be able to meet deadlines and achieve milestones. It is thus fair to say that most interactions took place online, even if this was not the only type of contact that took place. In addition, learners admitted to having had occasional face-to-face contacts and discussions of some kind behind the scenes, even though this was not officially allowed.

Participant instructions for the weekly assignments had to be accessed via the Internet. All the interactions among tribal members themselves, or between tribal members and the facilitator of the course, took place through the medium of a number of pre-selected web-based communication tools such as *Yahoo Groups, Yahoo Messenger, NetMeeting, WebCT,* and *InterWise*. These tools were selected because they provided learners with a wide range of experiences in the use of a variety of applications. Learners all obtained a useful representative knowledge of what the Internet has to offer in terms of synchronous and asynchronous communication from their use of these tools. In addition, their use of these forms of communication presented learners with opportunities to evaluate the different functionalities that are offered by both expensive commercial learning management systems – and those applications that are available at no charge on the Internet.

One cost-effective application, namely *Yahoo Groups,* was used as 'base camp' throughout the duration of the module. This application required all learners to get a *Yahoo* ID, which is available at no cost. The drawback of this service is the fact that it is heavily supported (financed) by paid advertisements that are attached to all messages. This renders it less than ideal as an environment in which to learn. During the first week in which the module was presented, this service was the sole available medium of communication. While, from the second week onwards, other tools were introduced and integrated on a regular basis, it soon became clear that *Yahoo Groups* were going to be the more formal medium of communication, particularly if the intended message was intended for the entire group. One might note at this point that *Yahoo Messenger* proved to be a popular medium for making interpersonal contacts – even across tribal boundaries.

For this module, the 24 learners were divided into 4 groups (tribes), each of which consisted of 6 learners (tribal members) – all of whom possessed widely differing levels of computer and web literacy skills. It was at the introductory meeting that the first tribal task was given to the tribe. The task was to come up with an original name and slogan for the whole tribe.

Tribal members were required to complete, on a weekly basis, a number of collaborative (tribal) and individual assignments. For the tribal assignments, learners were required to collaborate and negotiate online by using the web-based mediums available to them. All assignments also had to be 'handed in' electronically. One example of such a tribal

assignment follows below (See Table 9):

Table 9: Example of a Tribal Assignment

Tribal Assignment 4

•In your tribes, **create a clickable concept map** of the most important issues/concepts related to teaching and learning via the Internet. In this assignment, your tribe should demonstrate that you truly understand the intricacies involved in elearning.

I would like to see a holistic view of elearning when looking at your map. Please note that the idea is not to link the map to keywords only, but rather to extensive notes on each of the topic. Think big and read widely!

•**Add this map to your tribal website** and have it up and running by 17:30, Wednesday 21 August 2002.

Individual assignments varied from those that encouraged learners to improve their technical skills, to those that were more scholarly in nature. An example of each follows below (See Table 10):

Table 10: Example of Individual Assignments

Individual Assignment 4 *(Technical Skill)*

This week you should add the following feature to your personal web site:
•a sound file (approximately 30 seconds should do it) in which you give us your impressions of the first week on the CyberIsland. Include at least one positive and one negative comment.

Individual Assignment 6 *(Scholarly activity)*

Compile a report (600 words maximum) on ONE of the following topics:
•The role of the online facilitator as contrasted to that of the traditional face-to-face teacher.
•The strengths and weaknesses of the Web in an educational environment.
Mail your report in HTML format to the Webmaster of your tribal site with a request to have it linked from there. This link must be available by 17:30, Wednesday 7 August 2002.

In the spirit of the original *Survivor*© game, Immunity and Reward Challenges were also posted on a regular basis. The facilitator made use of these challenges to make learners aware of a number of related and important issues. For instance, at one point it became clear to me that the learners had no idea what an IP address was. This problem area was then formulated into a question and posted as a Reward Challenge (See Table 11).

Table 11: Example of a Reward Challenge

Reward Challenge
Who can tell us what an IP address is? How can I find out what my IP address is? The first correct response will get the reward!

As this module was presented in asynchronous mode, there were quite a number of legitimate objections to the fact that the award was presented to the first correct response. While some of the learners had access to their networked computers only from home, others could only connect to the Web from their places of work. This meant that, no matter when – in any 24-hour period – a reward challenge was posted, some learners were certain to read about the challenge before others could do so.

The reward was virtual by nature and came in the format of a picture attached to a bulletin board message. The pictures below depict an example of what these rewards were like (See Figure 4):

Figure 4: Examples of the typical rewards in the Reward Challenges

The way in which the game worked was that members would be voted off on a weekly basis until only one final survivor (our *CyberSurfiver*) remained. Thus, at the end of each week's activities, the tribes had to vote one member of the team off on the basis of a number of predetermined criteria. This member then joined the other evicted learners in a separate tribe that was called Tribe 5. Even though they were out of the running for the Grand Prize, all members of Tribe 5 were nevertheless required to complete all the tribal and individual tasks that were given to those who remained in the game.

The only sure way not to be evicted was to win immunity for the week.

Just as with the Reward Challenges, Immunity Challenges were also posted on a weekly basis and included tasks whose relevance to the purpose of the module was more indirect.

One of the Immunity Challenges, for example, aimed to assess the typing speed of learners in the course. I, as the facilitator, needed this information because I planned to set up an online test that included a large number of paragraph-type questions which required learners to be able to type in large amounts of text. I obviously needed to take into account the typing ability of the students because that variable would influence the amount of time that I would allocate to the test.

The learners were therefore asked to download from the Web a typing tutor that included a typing test utility. Learners then had to type a paragraph, obtain their scores, make screen dumps of these scores, and attach them to a bulletin board message for all to see. The figure below shows the 'evidence' of the score of one of the participants (see Figure 5).

Figure 5: Example of Immunity Challenge 'Evidence'

Brenda

has today successfully completed a computer based TypingMaster typing test with the following results:

Test name:	A Reflection
Date:	30/07/2002 00:46
Duration:	2 min.
Done:	2 min.
Gross speed:	43 wpm
Accuracy:	88 %
Net speed:	38 wpm
Gross hits:	432
Error hits:	50 (10 errors * 5)
Net hits:	382

As in the television show, tribes were required to vote off one member each week. In order to process these weekly votes, a web-based voting station was created with PHP. Learners gained access to the station by utilising a username and a password. It therefore became possible to limit each learner to only one vote – and a vote for only one person. The voting station only allowed learners to vote for the members of their own tribes and they were not allowed to vote for themselves. The voting station usually closed on a Thursday evening at midnight – after which time the person with the most votes was automatically transferred to Tribe 5. If more than one person got the same number of votes, or if no one got any votes, the computer randomly selected a person to be voted off.

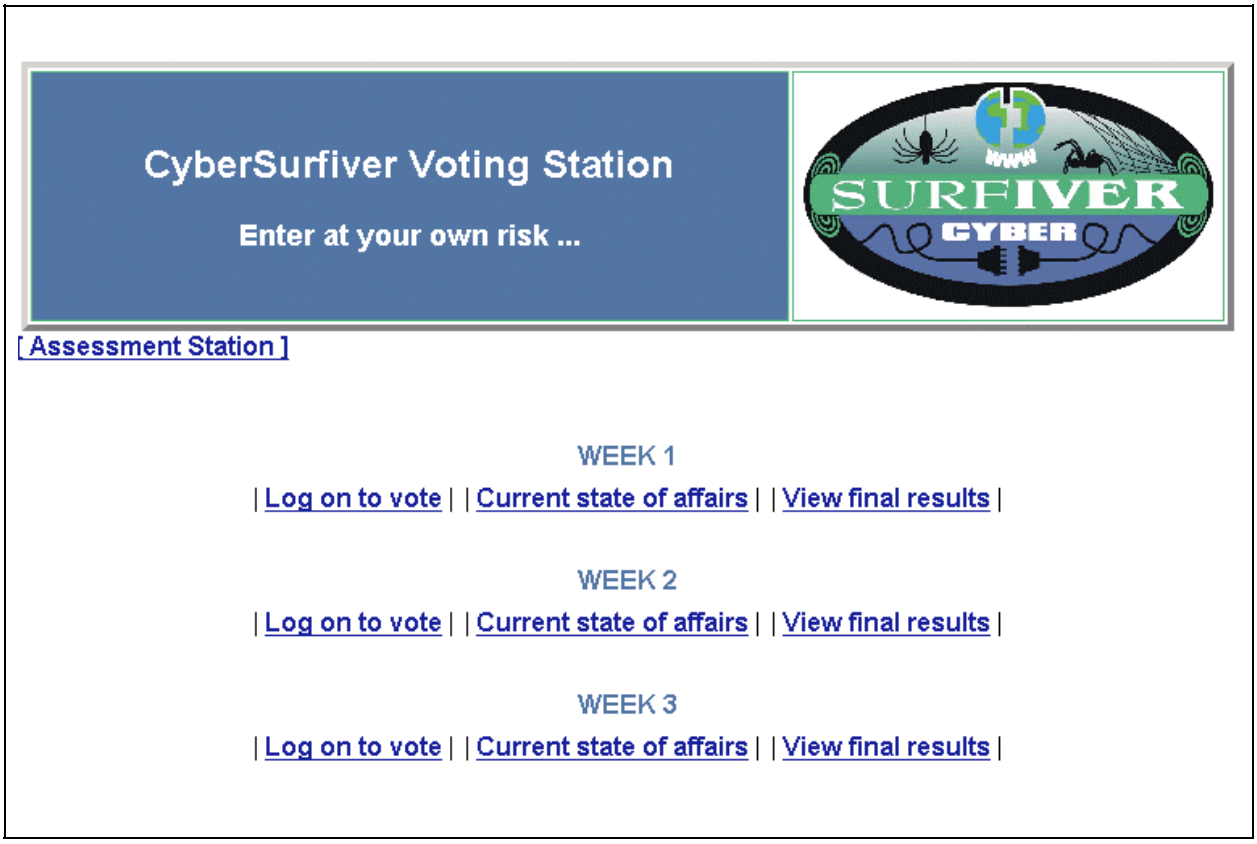
Members of Tribe 5 did not have to vote, as they were no longer eligible for the Grand Prize. However, all learners became part of the Jury who, in the final week, had the opportunity to choose the

winner of the Grand Prize from the remaining 'Surfivers'.

At one point, the number of active members in the tribes began to dwindle because more than half of the initial team members had either been voted off or had fallen out of the course for various reasons. In line with similar surprises in the reality show, I introduced a new tribal division that elicited high levels of stress in some while elevating levels of satisfaction in others. This action entailed a shuffling of the tribes so as to combine into two teams (Tribe 6 and 7 – consisting of five and four members respectively) those members who were still in the running for the Grand Prize.

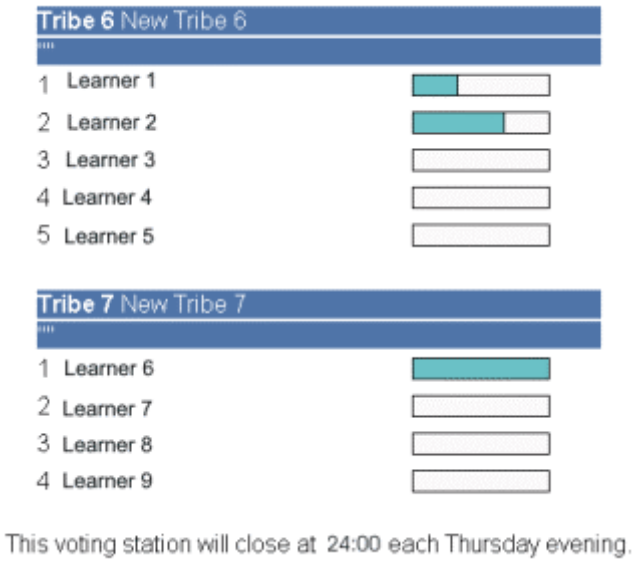
At this stage, a number of those who had been voted off expressed their dissatisfaction with Tribe 5's inability to obtain active participation from all its (evicted) members. They then started a new tribe (Tribe 8) that turned out to be highly functional after an additional shuffle had taken place. Figure 6 shows the interface of the Voting Station.

Figure 6: Voting Station Interface



The learners could log on to vote (and they could only vote once), but they could also see the current state of affairs at any time during the week. This link took them to a page where the names of all tribal members were displayed and where they could see the number of votes that had been cast against the various members (see Figure 7).

Figure 7: Example of 'Current State of Affairs



Once the voting station had closed at midnight on a Thursday evening, the members who were voted off, were automatically moved into their new tribe (see Figure 8).

Figure 8: Example of 'View Final Results'

Once the names of the evicted tribal members had been moved to Tribe 5, an animation would appear. The purpose of this was to recreate with as much verisimilitude as possible the features of the reality show. In *Survivor*, the torch of the person who has been voted off is ceremoniously extinguished while the presenter states dramatically that the tribe has spoken. On CyberIsland, this same effect was created by an animation that symbolised a dangling computer mouse that is cut loose with a pair of scissors, accompanied by the statement: '*The tribe has spoken...* ' (see Figure 9).

Figure 9: Example of the CyberIsland 'Torch' Before and After the Votes Have Been Tallied

As higher order thinking and collaboration were skills that were deemed a priority in the module, learners were also required to carry out peer evaluation of the other tribe's collaborative assignments. Due dates

for the assignments were usually set for the Wednesday evening. After the deadline had passed, learners were required to spend time evaluating the collaborative work performed by other tribes. They then had to log onto the web-based assessment station, which was also developed in PHP, and assign a mark to each of the other tribes. They did not have access their own tribe's marks and could only vote once for each of the other tribes (See Figure 10).

Figure 10: Example of the Peer Assessment of Tribal Assignments

Cumulative Results:

Tribal Assignments

[RETURN]

Tribal Assignments	1 (100)	2 (100)	3 (100)	4 (100)	5 (100)	6 (100)
e-Learn-a-long	84.57 %	0 %	50.86 %	84 %	0 %	0 %
Uno	72 %	0 %	78.4 %	77.6 %	0 %	0 %
Virtual-Eve	82.67 %	0 %	70.4 %	54.4 %	0 %	0 %
e-Go	51 %	0 %	37.71 %	45.33 %	0 %	0 %

Furthermore, the learners were also required to evaluate their tribal member's collaborative behaviour. Here they had to assess the other members based on their availability, level of participation and the quality and quantity of their contributions (See Figure 11).

Figure 11: Peer Assessment Criteria for Collaborative Behaviour

Collaborative Behaviour
Tribal Members

Criteria	Maximum score	Your assessment of the individuals in your tribe				
Availability	5					
Level of participation	5					
Quality of inputs	5					
Quantity of inputs	5					
Team spirit	5					
Total	**25**					

Closure

This chapter explained the nature of the game and the manner in which it was played as part of the eLearning module that forms the basis of the case study under consideration. As the Survivor metaphor was the basis on which the entire module was presented, the module was designed to reflect the nature of the reality show as closely as possible. The game elements that were simulated included the group constitution, the isolation on the 'virtual' island, the tribal and individual assignments, the Reward and Immunity Challenges, the shuffling of teams half way through the module, the voting procedures and the Grand Prize waiting at the end of the module for the sole remaining 'CyberSurfiver'.

The next chapter will outline the highlights of the various weeks, and will deal with the above-mentioned range of game elements and their impact on the complexities of the group's functioning.

Annexe E: Schematic representation of coding process for Category 1

Category 1	Clusters	Themes	Quoted words and phrases
Curative factors	1. Altruism versus individualism	A feeling of fear linked to failing team members and scared of disappointing team members A sense of being selfish as assistance was only provided after individuals were coping or capable of doing assignments A sense of feeling guilty of being selfish Rationalisation where a belief was expressed that all team members experienced problems Rebellious behaviour Expressed experiences of support from team members on emotional levels	*Lonely* *Different times online* *Waited long for e-mail to be answered* *Too busy coping* *Agitation* *Inability to work in a team* *Things too fast* *Do not know what team mates know* *Communication* *English spelling checked in MS Word for e-mails* *Fear of failing team members* *Wanted to win* *Help myself and then the others- felt sorry for this* *Scared of disappointing team members* *Have an image to uphold* *Wanted to support team – but too busy coping* *Give support – get support* *Rules made to be broken* *Others students suffered as well* *Motivation was to get good marks* *Formed own tribe – regardless of consequences* *Enjoyed wanted to do well* *Challenge* *Learned a lot* *It was not a game* *Tribe members gave moral and cognitive support* *Feedback from facilitator was motivating* *Tried to share emotions by using emoticons*
	2. Communication	A feeling of being lonely Problems concerning asynchronous access A feeling of not being able to keep up Problems with communication, linked to use of language and grammar and waiting long for responses via e-mail Description of positive emotions and explanation of attempts to share feelings	
	3. Internal drive (marks, volition) and value system	Description of negative emotions such as feeling agitated Feeling threatened by not knowing what team members know or don't know Wanted to do well for purposes of self-image and image that others had of them, academically and to win, linked to motivation Positive descriptions of experience Negative experience of the module not being a game Motivating experience due to feedback of lecturer	

Annexe F: Schematic representation of coding process for Category 2

Category 2	Cluster	Themes	Quoted words and phrases
Process of Development	**1. Initial phase** Frustration due to insecurity and fear of the unknown	Feeling of experiencing absolute chaos and feeling anxious and frustrated, due to external and personal aspects Avoided intertribal relationships Recognition of own incapability and reasons for failure, and thus felt 'exposed' Communication only when seeking help Recognition of learning process as difficult and painful	*Absolute chaos* *Anxious* *Not competent* *Frustrated* *Avoided intertribal relationships* *No support made me anxious* *I set my goals too high* *Felt totally nude* *Knew too little* *I failed instantly* *Communication on a help-I-am-drowning level* *Painful learning* *It was hard* *Exposure element*
	2. Second phase 1. Uneasiness and dynamics (neg. & pos.) with working in a team (grouping was done without keeping in mind skills, background, leadership) etc. Uneasiness, guilt feelings, rage concerning the process of voting people off the team 2. Life style changing efforts to cope by involving body, mind and spirit	Physically – stay up at night, muscle tightness, life style changes, illness Psychologically – intellectually: lateral thinking, questioning, formulating questions, time management, project planning, delegation, decision making, problem solving Making use of resources – e.g. previous learning experiences regarding computer and programmes Volition - self talk, value system Emotion - direct and open communication concerning feelings, self talk Socially - enhanced effort to communicate by breaking the rules (phoning, visiting, friends, family, colleagues) Spiritually - breaking the rules and therefore challenging own value system Involved family	*Reached the a-ha experience* *When I saw it on my screen I was extremely excited* *Wanted to finish tasks better* *Saw a pattern - became more competent* *Purpose full or accidental learning* *Attained competencies - found out how things worked* *Frustration got less with Messenger* *Later on said things how it was said and that was it* *When you could do something you immediately experienced it more positive* *Tried and tried again, got it right - but do not know how – did not learn what I was supposed to* *Formed new group because I wanted to learn* *Work got easier as we went along* *Got easier* *Load was lighter* *At times difficult* *When I saw what the output was, knew more or less what to do* *Phoned* *Suddenly did not feel stupid anymore* *Thought I was getting to know the subject matter now* *Individual tasks were motivating* *Physical challenged – muscles ached, ankles swollen* *You know you've got a deadline* *Dreamt how to do it* *In the back of your head all the time*

Category 2	Cluster	Themes	Quoted words and phrases
Process of Development	**3. Third phase** 1. Sense of achievement 2. Development and cohesion 3. Staying 4. Giving and receiving support	Recognition of valuable experiences when competency was obtained and new things learnt Experiences positively enhanced when computer became 'human' A feeling of having to stay due to extreme inputs made and development of certain levels of competency A general sense of enjoyment Managing self and learning, and involving family and friends Realisation of the necessity of completing course Positive and negative experiences regarding content Demonstrate internal motivation to keep up with personal and external expectancies General sharing and requesting information Ability to anticipate difficulties Extra measures taken not required by course -individually and with peers	*Experienced a lot* *Worked very hard* *When more competent – focus moved to interaction between people* *Computer became like a person – made it more enjoyable and made me carry on* *You knew you had to do it* *Involved family* *Daughter typed – faster than me* *Family helped and understood* *I was like a manager* *Changed lifestyle and schedule* *Time management* *Made a time table* *No choice – had to do it* *Contacted friends outside group* *Did html course – bound us together* *Enjoyed it* *Learnt so much* *Learnt a tremendous amount* *Learnt new things* *People do not give up that easily* *Most creative module of the year* *Idea fascinated me – but I hated it* *Wanted to bail out – not worth it, have done so much* *Will not give up* *Showed kids what their mom can do* *Show people what they got right* *Lot of information from e-mails* *People anticipated problems* *There was sharing* *You have to cope* *It was fun* *E-mailed web address to lot of people* *Found Netscape composer – did not do the course* *Asked for help*

Annexe G: Schematic representation of coding process for Category 3

Category 3	*Clusters*	**Themes**	**Quoted words and phrases**
Inhibiting Factors	1. Giving up/being voted out	Negative experience regarding voting procedure	Lonesome *E-mail took long to be answered* *Initial response to teamwork = anxiety* *Tribe members not all online* *You do not know if you do things right* *Previous knowledge did not help you at all* *Do you know what the other people know?* *Right at the beginning – no support* *Frustrated by working in a team* *Voting each other off – negative experience* *Not enough technical knowledge* *No demonstrations beforehand* *Lack of communication between team members in the beginning* *Language – nobody's first language was English* *Constant short individual activities required, not part of initial assignments* *Technical and software knowledge not sufficient* *Telephone account very high – conflict at home* *Did not know what to expect – insufficient information before we started* *Dividing into groups chaotic – influenced participation later on* *Lack of time* *Technical problems – Telkom, no personal computers* *No leader in a group* *Had to carry 'baddies/strugglers'* *Nobody strong enough to take the lead* *Information on entry level for course misleading* *Everybody doesn't have the same technology or the same computers* *Break up when talking* *Missed important messages – did not have time to read them* *Isolation* *Cannot express myself in e-mail* *E-mail not spontaneous* *Will use 50 emoticons and still not able to express myself* *Scared of being misinterpreted – will offend* *Body language is important – not seeing each other online* *Communication with Interwise – time delay in relay of sound signals*
	2. Lack of preparing learners on what to expect from, of and during the course, lack of selection criteria	A perception of not being informed regarding the correctness of application of skills, as existing knowledge is of no consequence	
	3. Lack of technological support and technical knowledge	Opinions that existing knowledge on Information software technology is insufficient Not all participants on the same level regarding technological skill Perception that all participants had different levels of skill Technical and software knowledge not sufficient	
	4. Group selection is troublesome	A feeling of unhappiness with the manner in which tribes were selected Lack of knowledge regarding the level of skill of all tribe members Lack of leading in tribes Lack of communication Perception that lesser skilled participants had to be 'carried'	
	5. Language	Problematic that official language for proceedings was not first language of any participant Lack of ability to communicate and express self electronically Fear of being misinterpreted due to lack of observing non-verbal communication	
	6. Feeling of being overloaded and time shortage	Lack of time Perception that important information missed Feeling that too many small assignments were thrown in between main assignments	
	7. High financial costs	Experience of conflict in the family situation due to high telephone accounts	
	8. *Telkom* problems	Experiencing problems with personal computers as well as Technical support from *Telkom*	