

Chapter 5: Process of Affective Development

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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 <i>process</i>
Kozier, Erb and Olivier (1991:1424)	A series of actions directed toward a particular result.
SA Concise Oxford Dictionary (2002: 932)	<ul style="list-style-type: none"> ⊗ 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.

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Table 5.2: Definitions of the concept *affect/ive*

Source	Definitions of <i>affect/ive</i>
Huitt 1999a	A feeling or emotion as distinguished from cognition, thought, or action.
Huitt 1999b	The emotional interpretation of perceptions, information, or knowledge.
<i>Yahoo! Education</i> 2005	<ul style="list-style-type: none"> ☉ 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	<i>Development</i>
Kozier, Erb and Olivier (1991:1424)	An individual'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)	<ul style="list-style-type: none"> ☉ Grow or cause to grow and become larger or more advanced; ☉ An event constituting a new stage in a changing situation.
Dictionary.com (2004)	<ul style="list-style-type: none"> ☉ The act of developing; ☉ The state of being developed; <i>and</i> ☉ 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

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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.'

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[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.'

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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, Hannes²⁰ 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 dubbelklik! 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.

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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:

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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 kompetent 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.'

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[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.'

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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 kompetencies 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:

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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
Anette – 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 *CyberSurviver* module. She gave a simple statement of how she experienced it:

Quote FG 5.30:

'Painful learning'.

The *CyberSurviver* 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:

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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.

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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 rekenargeletterd 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.'

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[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 *CyberSurviver*.

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 ...'

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[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.'

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[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:

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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 kompetencies 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 kompetencies 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.'

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[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 gewoon 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:

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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 *CyberSurviver* 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:

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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:

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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 struggled (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*

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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.

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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 excitement, 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:

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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: ...

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*... 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 *CyberSurviver* 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

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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!'

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[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 proud 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.'

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[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.'

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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 of 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

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*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 *CyberSurviver* 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'

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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

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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 *CyberSurviver* 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.'

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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.

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**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 *CyberSurviver* module.

Bob made an enquiry with regard to assignments. As the *CyberSurviver* 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:

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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.

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**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 *CyberSurviver* 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*

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[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 **greet**s his peers and then **report**s 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): cecilvr: 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

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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): cecilvr: 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

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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 *CyberSurviver* 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:*

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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/(participant'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 voluntarily 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.

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**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 *CyberSurviver* 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 Survivors,

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.'

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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.'*

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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 *CyberSurviver* 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*

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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 waarom 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 divided 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:

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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 *CyberSurviver* 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 conclusion of the *CyberSurviver* 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;

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- ☉ 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.

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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 *CyberSurvivers* 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 *CyberSurviver* 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 *CyberSurviver* 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

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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 *CyberSurvivers* 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

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(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 *CyberSurviver* 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

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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 *CyberSurviver* 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 and 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*

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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 *CyberSurviver* 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

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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 *CyberSurviver* 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 *CyberSurviver* 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.

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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 *CyberSurviver* 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 *CyberSurviver* 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).

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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 *CyberSurviver* 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.

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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.

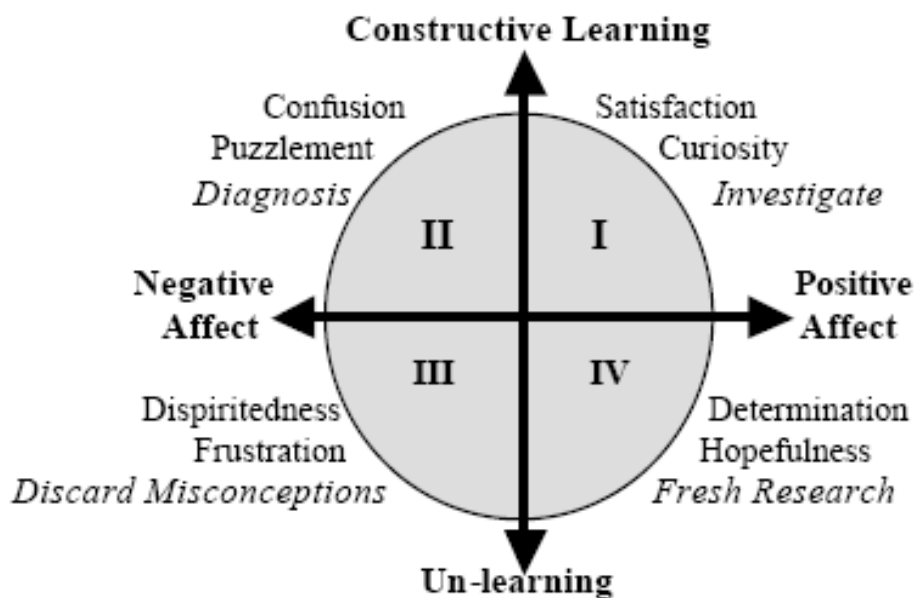
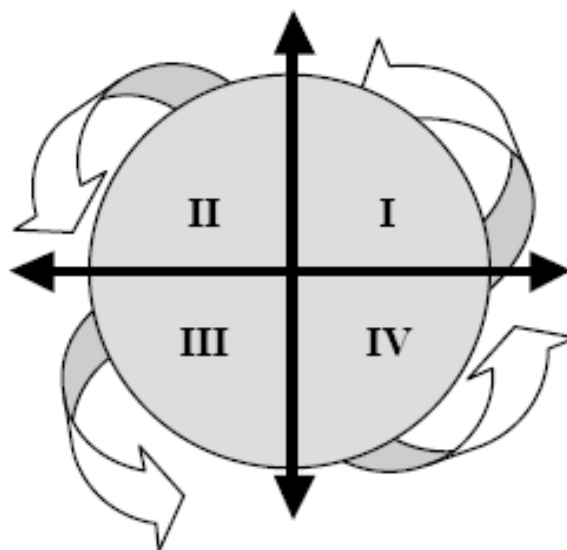


Figure 5.2 Four-Quadrant model, relating phases of learning to emotions (Kort and Reilly 2002a:60, 2002b:8)

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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:

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- ☉ 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

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experience of such an emotion. It may be assumed that the participants experienced the *CyberSurviver* 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).

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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

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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 *CyberSurviver* 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.