

Chapter 4:

FINDINGS

4.1 Introduction

“Although traditional face-to-face offerings can result in some learning, complementing it with the Internet is more likely to result in significantly more effective learning” (Damoense, 2003, p. 27).

In Chapter Three, the research design and methodology was discussed. During the coding process, several categories emerged. The categories are summarised in Table 14.

Interaction with the lecturer	Interaction with one another	Interaction with the study material/content
Motivation and Encouragement: Emotional issues	Learning :Pedagogical Issues	Preparation
Convenience: Practical issues	Application: Academic Issues	Notes/note-taking
Understanding: Academic issues	Confidence building: Social issues	Continuous learning
		Deeper learning
		Additional Information
		Generic Skills

Table 14: Summary of categories

These categories are elucidated in Tables 16 – 18.

The main- and sub-categories will be discussed and analysed in Chapter 4. Quotations from the different data collection instruments will be included in the findings and finally, negative experiences will be highlighted.

The rationale for this study is to investigate how using a Learning Management System as part of the course affects the learning experiences of first-year economics students. Results from the different data instruments, combined with the coding used, as explained in Chapter Three, will be examined.

From the rationale, three questions emerge:

- How do students use technology to interact with the lecturer when classes become extremely large?
- What is the relationship between LMS use and students' experiences of peer interaction?
- What possibilities exist to encourage students to interact with content by making use of an LMS?

Chapter 4 is divided into three categories, according to the three questions mentioned above. In this chapter the effect which the LMS had on interaction and communication according to the students' reactions and comments, is discussed. The comments of the participants were not edited for language. Students use a different style of writing (SMS language) which adds to the relaxed atmosphere of the discussions and this is evident in their contributions.

Sub-question 1: How do students use technology to interact with the lecturer when classes become extremely large?

The first category relates to the interaction, which was facilitated between the lecturer (or tutor, as representative of the lecturer) and the students in the online environment. Table 15 summarises the key concepts and words which were identified during the coding process.

SUB-QUESTION 1	Category	Learning domain	Key Concepts	Additional Descriptive words
Interaction with the lecturer	1.1: Understanding: academic issues	Cognitive	Help/explain	
			Feedback	
			Understand	Check/Mistakes
			Satisfaction	Improved marks
	1.2: Convenience: practical issues	Cognitive	Quick	speed, saves time
			Easy	Easy
			Convenient	ask online
	1.3: Motivation and Encouragement: emotional issues	Affective	Lack of self-confidence	shyness, fear
			Motivate	Relationships, encouragement
			Care	

Table 15: Categories and key words: Lecturer Interaction

4.2 Interaction with the lecturer or the representative of the lecturer (tutor)

Holmberg (1983) believes that "...students learn by engaging in guided didactic conversation with their instructors." These conversations are "...essential characteristics of learning. Guided didactic conversation promotes a personal relationship between the instructor and the student, thus creating greater motivation in the student and increased learning outcomes" (Holmberg 1983). In this way, affective learning could be fostered. The first task was, therefore, to establish if "*guided didactic conversation*" (own emphasis) did indeed exist in the Ekn 124 class.

In the pre-course questionnaire (see appendix 2) one of the questions asked was how often they, as students, visited the lecturer to discuss problems and if never, what the reason(s) for that were. Only 39 (16,6 %) of the respondents reported that they had seen the lecturer in her office, whilst the rest, (83,4%) had never been to the office. Several reasons were cited, included the following:

“The consultation times clash with my classes.”

“I am a working person; I cannot come in to see her.”

“I am too busy.”

“I seem to understand the work, but when I learn I see that I don’t and then I cannot get hold of her.”

“I don’t prepare well enough.”

“I don’t know where she stays.”

“I am too shy.”

According to the comments, a lack of time, a lack of self-confidence and the need for a just-in-time explanation are the main culprits. The comments made by the students imply that they do have a need to communicate with the lecturer, but that the current method is not satisfactory. An alternative method of communication needs to be used as students in this group simply did not interact in a face-to-face manner with their lecturer. Thus, ways of initiating communication need to be found.

The first section of this chapter discusses students’ interaction with the lecturer (and tutors as an extension of the lecturer) by using the LMS and the experiences of the students with regard to this interaction.

After the initial identification of the main themes, as discussed in Chapter 3, three patterns or sub-themes emerge. These are:

Convenience (This refers to practical issues),

Motivation (This refers to emotional issues),

Understanding (This refers to academic issues).

Each category will be discussed separately by referring to key words that emerged during the analysis of the data.

4.2.1 Category 1: Understanding

The concept, 'understanding', (called 'comprehension' in Bloom's cognitive taxonomy of learning), is defined as "...demonstrating understanding of facts and ideas by organising, comparing, translating, interpreting, giving descriptions and stating main ideas" (Fowler, 1996). Thus, the ability to grasp the meaning of content is of the essence; going further than merely remembering. It requires demonstrating a deeper level of learning.

The simplest possible model of learning envisages a straight transfer of material between institution and student:

$$\text{Student} + \text{Teaching Material} = \text{Successful student}$$

However, a third and vital ingredient needs to be added in order for effective learning to take place:

$$\text{Student} + \text{Teaching Material} + \text{Student support} = \text{Successful student}$$

(Simpson 2002, p. 5)

Simpson, as cited in Chapter 2, defines student support as all activities beyond the production and delivery of course material that assist in the progress of students in their studies and divides student support into academic as well as non-academic categories. He lists the following under academic support:

Defining, explaining, assessing, chasing progress, developing skills, exploring, enriching. (Simpson, 2002, p. 7)

The third category/cluster of comments with regard to the interaction with the lecturer/tutor was focused on the benefit to the actual learning process and improved understanding of the content.

Academic support from the lecturer and tutor featured throughout the questionnaires and interviews as integral to the perceived success of the students.

4.2.1.1 Help/explain

The first keyword defined under sub-question one refers to the additional help that is available via the LMS. Tutors are there to give additional explanations to the students. Economics students, especially first-years, experience economics as an abstract subject and very often, they find it particularly difficult to conceptualise. It is also important that certain aspects of the work are mastered before a student can progress to the next section of the work. The following statements point out the advantage of having help at hand in the form of a tutor, from Questionnaire 1. Students identified the help that they received as one of the most exciting uses of the LMS, hence indicating not only an increase in cognitive learning, but also an increase in student motivation, a level of the affective domain of learning . This is supported by comments from the other two questionnaires, where students pointed out the opportunity of asking for help and also believed that other students would benefit from this additional assistance.

“The tutor session (section) is exciting, you can email in case of any difficulties. It is enjoyable.” Q1

“It is also of great help to have the tutor assist you because when you have questions you can go to her. WebCT has been of great value to me so I definitely recommend it to others.” Q 2

“They were always there guiding us and helping us with the work.” Q 3

During the second focus group meeting, the tutors indicated how their initial way of communication had changed over the course of the semester and how they realised the value that their comments and assistance added to the learning process. At first, they visited the discussion area only once or twice a week, but found that if they paid more individual attention to the responses, instead of writing only a general comment, the resultant reactions were greater.

Ek het altyd net een of twee keer per week gegaan en al die emails gelees en dan ‘n algemene antwoord ingetik en dit aan almal gestuur, maar nou sien ek daar is altyd ‘n paar wat heeltemal way-out is, so wat ek nou doen is ek gaan elke dag so ‘n halfuur in wat in elk geval min is, dan kan ek vir elkeen persoonlike antwoord en hulle waardeer dit in elk geval baie.

(Translation: “I went only once or twice per week and read all the emails and then typed in a general answer and sent it to all, but now I see that there are always a few who are way-out, so what I do now is that I go every day for half an hour which is in any case very little, so that I can write a personal answer to every one and they appreciate it in any case a lot.”)

“Ja, maar ek verduidelik dit soos aan ‘n std 2 kind! Elke stap, ek los niks uit nie! Dan kan hulle alles sien. As hulle ‘n vraag vra, dan maak ek of hulle niks weet nie. Daai goed - soms vergeet ek!”

(Translation : “Yes, but I explain it as I would to a Std 2 child! Every step; I leave nothing out! Then they can see everything. If they ask a question, then I pretend that they don’t know anything. That stuff – sometimes I forget!”)

During the focus group meeting with the students, the students shared the same views with the tutors where they felt that the intervention by the tutors, the detailed explanation and the extra attention that they received, was most beneficial.

4.2.1.2 Feedback

The second keyword refers to the value of feedback, and the positive value that the students attach to feedback.

“Our tutor was 200% he answered all the q’s [questions] effectively.”

“If a question was posted, feedback was quick. Tutors often asked additional questions derived from your answer.”

This last statement indicates how the tutors added value to the discussions by encouraging students to think further than the question that was asked. A detailed example of this is discussed at the end of this chapter.

The tutor of this specific group was, according to the group, dedicated and this added to the motivation factor that they experienced This added to the affective learning of the students.

“Our tutor was wonderful. She posted things on time; organised extra classes. She really cared about what she did. I have heard from other students that

their tutor was not good and they did not get discussion and they did not get any replies. And if it's a one-way discussion, then it's not worth anything. The tutors must be dedicated to what they do; must really want to do it."

4.2.1.3 Understand

One of the problems that economics students often mention, is the fact that they seem to understand the work when it is discussed in class, but when they sit down to prepare their tutorials or prepare for a class, they realise that that they do not really fully comprehend the material. The third keyword, therefore, speaks about the help that is available when students find that they do not understand a concept – thus the cognitive learning domain. Another comment that is regularly made is that they thought they understood the work, but when it came to writing the test and they received their marked scripts, they had in fact, misunderstood some issues. In fact, this has helped them to apply the knowledge to other situations. According to the comments that were made, this problem could be solved by making use of discussions and questions with the tutors, where they could ask and be shown if they were indeed, correct.

Students' general impressions of the WebCT component, as expressed in the first questionnaire, were positive with regard to making use of the tutors as guides to ensure that they were on the right track.

"I think it helped because it makes me to think thoroughly and it makes me to ask my tutor the questions that I don't understand. And another thing, it makes me to be flexible." Q1

One of the most exciting aspects of the LMS use that was pointed out, also in questionnaire one, relates to the opportunity to clarify issues.

"One can discuss different components of economics and can ask questions if confused."

Additionally, in questionnaire two, the immediate explanations and response to questions and the help and assistance in the understanding of course material, is emphasised.

“The hybrid learning has stimulated my interest in the course EKN 124. The interaction with the online tutors helps a lot; if you don’t understand anything about the course, you send an email and he/she will respond immediately and answer your question.”

This is supported by the following quotation from Questionnaire Three, as well as the focus group held with the students.

“Ja [yes] and that gives us more detail, instead of saying good, or you can improve a bit, they are actually saying this is where your problem is and get back to you on it, come back to me again.”

The intervention that took place and the fact that students were corrected before it was too late, is invaluable to them. They know that what they are learning is acceptable and correct.

Although this study looks at the learning experiences of students and not at the effect that the use of a Learning Management System has on results, there were students who felt that it had a positive influence on their marks. This is mentioned not only by the students themselves, but also by the tutors.

4.2.1.4 Satisfaction

In the first questionnaire, students indicated that according to them, using a Learning Management System would lead to better results. The tutors also commented on this perception during the second focus group discussion. They had access to the number of discussion contributions that every student had made, and detected a relationship between that and results, as can be seen by the following comment. Much of this perception is based on the idea that the students did not want to disappoint their tutor; they felt accountable to the tutor. The fact that students were no longer just one member of a huge class, but were known personally by the tutor, made a great difference to their attitude towards the subject.

“Daai (Student se naam) ou was baie disappoointed in sy eerste toets, hy het so 32/50 gekry, toe se hy vir my hy gaan beter doen in sy tweede toets, en hy neem deel en alles en nou het hy in die 40!”

(Translation: “That (student’s name) guy was very disappointed with his first test, he got about 32/50, then he told me that he was going to do much better in his second test, and he participated and all, and now he has in the 40s!”)

Ek dink as jy kyk na die eerste en die 2de toets punte, daar is ‘n groot verskil. Ek weet nie of dit WebCT is nie, ek dink dis ‘n geval, die mense is bang hulle gaan my teleurstel en ek dink hulle het geleer. Hulle sê die heel tyd ‘sorry ek het so sleg gedoen’, en ‘ek gaan harder leer’, en so aan, en ek het nou die toetse gemerk en hulle het rerig hard geleer.”

(Translation: “I think if you look at the first and the second test marks, there is a big difference. I don’t know if it’s WebCT, but I think it’s a case of, the people are scared they will disappoint me and they learned. They say the whole time ‘sorry that I did so badly, I will learn harder’ and so on; I marked the test now and they really learned hard.”)

(In the background, the rest of the tutors affirmed this statement, as could be heard by their responses on the tape.)

The students themselves also felt that they had gained in terms of results by using the LMS in their studies of economics. These comments were made after the examination had been written, but before the results were published. Students, therefore, did not know their final mark, but were able to share their thoughts on the learning that took place and were of the opinion that their marks had been affected by the online presence.

“We only implemented this group thingy in the second semester, I don’t know maybe I was crazy or maybe I did study a bit harder maybe the first semester ‘skrikked me wakker’ [woke me up] but the second semester, my marks did improve ‘cause truly I was forced to do work every week, ja [yes] that was kind of the idea, but truly, I did see an improvement of between 5 – 10%, that’s big for me, well that was good at least.”

“I can say it has helped, because last semester I also failed economics so this semester I can say I improved my semester marks, the investments, interest what is the savings, I wasn’t involved in those things, that is how I learnt!”

The following comment from the second questionnaire summarises very succinctly, the general level of satisfaction experienced by many of the students. This student believes that the use of WebCT and specifically the discussions were instrumental in her improvement.

“The discussion on WebCT is very helpful because now I am able to speak Economics everywhere I go, meaning now I understand it much better than last semester. I used to get 33-36% in my semester test but now moved to 56%.”

Clearly the above student’s cognitive learning had improved. Below is an example of one of the discussions. It illustrates the level of thinking and the way in which the tutor leads the student to a deeper level of understanding. This type of interaction would not have taken place outside an LMS, and thus the higher level of cognitive learning would not have taken place.

Example of a discussion.

During the third week of the semester, the learning topic was: Unemployment. During the TC, the theoretical aspects, such as the definitions of unemployment, the different methods of measuring unemployment and the general causes of unemployment, were dealt with. This topic is something that the majority of South Africans have encountered in their daily lives, be it via an acquaintance laid-off, hearing about job losses in the media or merely observing the number of unemployed people in the streets. It is, therefore, a topic that lends itself to an exciting and engaging debate. However, this was never the case in the TC, due to lack of time, too many students for it to be a fruitful exercise and the lack of confidence of the students.

It was the first discussion topic of the semester and the first time that students were expected to participate in academic online discussions.

Group 1’s discussion board question during Week 3

Message no. 69

TUTOR:

What, in your opinion, are the reasons for the unemployment problem in South Africa? How do you think this problem could be addressed? Make some realistic and substantiated suggestions.

Posted by Student (Student number) on Monday, 2 August , 2004 2:04pm

Subject: Discussion Topic 1

Message no. 118[Branch from no. 69]

The reasons for unemployment is that some people don't have qualifications(education) and others have been retrench while they have the ability to work. According to me some people don't get chance even if they have qualifications because the managers they say they are going to take their promotion. Other thing we as teenagers we don't want to go to school and be educated we just make thousands children and waiting to be paid by government for those kids. Another thing is that people who are willing to work are those people under the age of 15.Thank you i think that's my own understanding hoping that you will correct me if m'm [I'm] wrong

The role of the tutor was not to overshadow the students and take over the discussion, but to build their confidence and yet to spur them on to continue with the discussion and not to stop after making a single comment. The aim of these discussions was therefore, to allow students to engage in meaningful, continued interaction. The danger existed that students would make a single comment, merely for the sake of attaining marks, and then refrain from proper engagement with one another. Thus, the tutor kept the thread going by making short, positive comments and then asking additional, related questions.

Message no. 127[Branch from no. 118]

Posted by Tutor on Monday, 2 August, 2004 10:08pm

Subject: Discussion Topic 1

Very good! How will you go to work to provide equal opportunities for everyone?

The tutor takes on the role as a more constructivist “guide on the side” (Mazzolini and Maddison: 2003, p. 237) when she gives a very general, positive comment, which motivates and encourages the student, but then she prods the student to extend his comment so that he comes up with a deeper argument.

This discussion continued with other students making comments and adding to the conversation. The tutor continually guided and encouraged them, allowing the conversation to stay on track without stifling the contributions.

The second category defined under sub-question one refers to the way in which the use of technology makes the lives of the students easier, by offering alternatives to traditional methods.

4.2.2 Category 2: Convenience

The second category therefore focuses on elements of the LMS, which made the learning experience easier for students. The experiences of the students with regard to practical issues, as well as words that were identified as recurring and relevant to the key concepts will be discussed.

4.2.2.1 Quick

The speed at which students can communicate with the lecturer and tutors was a topic that was emphasised throughout the responses of different instruments.

Questionnaire 1 was completed one month after the commencement of the semester (and thus, after implementing the blended system of TC and VC). This questionnaire focused on students’ initial reactions to the LMS and how they experienced using this system in general.

Question No. 16 from this questionnaire asked:

“What are your general impressions of the WebCT components of Ekn 124?”

“One of the good things about WebCT that I like is that it is one of the fastest ways of getting a message and work to us from our lecturer and tutors.”

“I think our tutor was very active, you post a question today, and very quickly you get a response. “

This positive experience of learning with convenience, ease and speed, is also evident in the questionnaire 1 question no. 14, where students were asked:

“What is the most exciting part of the WebCT Component?”

“You get to ask question on the computer, you don’t have to go to the lecturer, it saves time.”

This student liked the fact that she could still get answers to her questions and that she could still communicate with the lecturer, but in a much faster way. What is also apparent from this comment is the issue of not having to actually take the trouble of making an appointment or having to waste time going to the lecturer’s office.

During the focus group meeting with the students, the following comment was made which again argues in favour of communication without necessarily meeting.

“It is very quick because we can communicate with lecture or even a tutor without a meeting face to face.”

This is supported by a comment from the second questionnaire, which focused on the usability of the LMS. This student mentions the concept of a lecturer (teacher) not being able to communicate with all the students in such a large intake of first-years, had there not been the inclusion of tutors.

“The tutor was able to answer our questions, the teacher would take a long time if we were a large group for her to post all the answers to each person. “

Chickering and Ehrman’s fifth principle emphasises Time on Task: “Time plus energy equals learning” (1996) – this refers to the efficiency of the time spent on a task. From the above quotations, it is clear that the use of a Learning Management System as a time-saving device is experienced positively and allows students to manage their time more effectively, because of the fact that students can communicate and solve problems without waiting, or making appointments, which inevitably waste time.

4.2.2.2 Easy

A second theme that emerged in the convenience category was that it was really easy to use this system: “ease of use”, “easy access to information”, “user-friendly, easy to access” and “icons are helpful” are phrases and comments that emerged throughout Questionnaire 1 under the heading, “The most exciting part of the LMS.” Students also commented in more detail on how they experienced the communication tools of the LMS.

“A person can communicate easily with his/her tutor and lecturer, if you didn’t understand something. It’s a very good thing.”

“It is the easiest way to communicate, it’s a sought [sort] of face to face communication with your tutor. “

“It’s easier to talk to your tutor via computer than face-to-face.”

It is interesting to note that the students made anthropomorphic connotations with the computer, as can be seen in the words, “face-to-face” and “talk” in the above two comments. The ‘human-like’ qualities of the computer are also apparent in the following comment from the same questionnaire, question 16, where students referred to the ease of communication that they experienced whilst using the LMS.

“Information is easily found and its serves as another lecture but electronically.”

“Fairly user friendly. Communicate with tutor quite a bonus. It’s a privilege.”

In questionnaire two, which was unstructured, students had to write down their own thoughts about the LMS. It is interesting to note that several students refer to the fact that they could still communicate, even if it were not face-to-face. It seems that students comprehend communication and interaction as not necessarily having to take place where there is physical contact, or that interaction does not necessarily imply an immediate response. Students also appear to value the advantages of some kind of contact with their lecturer. As a piece of advice that a student gave in reply to what he/she would recommend to other lecturers, is the inclusion of the chill-café, which is the forum for non-academic discussion.

“You can just open a chill cafe for your student so that they can communicate with you or you give them tutors and I think it will be easy that way cause any problems they do face they can communicate easily unlike the lecture course (because) is difficult to reach them.”

Very little else was said about the chill-café and those who did mention it, had mostly negative comments about it. They experienced this forum as a waste of time, stating that it was the most frustrating part of the LMS because there was “unuseful input”, “people chat about boring stuff” or “People discussing stupid stuff on the web. Chill-café is totally boring.”

One student indicated that it had no place in an academic environment. She found the chill-café the most frustrating part of the LMS, as she stated:

“The Chill-café, I really don’t see the use of it. Ekn is a course to learn not to play with.”

Worthy of note, however, is that the chill-café was not created to be part of the academic learning experience. It was created as a forum for socialising, to separate casual discussions from the more formal academic forum. Students therefore were under no obligation whatsoever to visit the chill-café at all.

During the focus group meeting with the students, the facilitator asked the following question relating to the level of difficulty experienced by the users:

“How long did it take you to get used to working with technology and specifically with WebCT in you learning environment?”

The general consensus amongst the students, as could be heard on the tape by their comments in the background, suggests that it was easy and user-friendly and that they did not experience the technology as a hindrance.

“I don’t know, it did not take long for me, cause its an easy system if you have some basic computer skills behind you, you know a little bit about a computer, chances are you are going to know it, some people will take longer, some shorter, but its an easy system to work on. Easy to pick up, I thought so.”

“I agree, quite easy.”

(Rest agree, general comments heard in background)

The general impressions gained from the discussions and questionnaires are that the system was straightforward to use, that students did not battle to get used to the technological factors and that they rated the use of the LMS as uncomplicated.

The third element which related to the practical issues of the LMS was that students found this method of communication handy and usable, in so far as they did not have to search widely to get help; they could access everything they needed for the course from one place.

4.2.2.3 Convenient

This specific LMS is available to the students twenty hours per day, seven days per week and anywhere where an Internet connection is accessible. (Back-ups are made every night between 24h00 – 04h00). Much of what was written by the students supports the notion that communication takes place within the milieu of their choice and students place a high premium on this. The fact they do not have to meet the lecturer or the tutor face-to-face, but may still have the opportunity to ask questions at their convenience and when a problem arises, was highly valued. Although it may seem that students have to wait a long time for replies, tutors visited the discussion board every second day and the students were given these times. They therefore knew when to expect answers. The overwhelming response from students was that they felt that using the LMS was to their advantage with specific reference to the aspect of convenience.

One of the distinct and recurring topics that emerged was that students could ask questions at their convenience and did not have to make appointments.

“We can go 2 one place and get it done @ once, no running around.”

In Questionnaire one, this sentiment was reaffirmed by several students, who stated the following:

“I especially like that you can ask the tutor something online and you don’t have to go and make an appointment with the tutor.”

“We now have tutors and are gathered in a group. If we have problems we can just send an e-mail 2 the lecturer.”

“In general WebCT is a useful method of learning. One can ask questions and get a personal response.”

“Ekn 124 WebCT component for me is exciting because I don’t get to learn only the theory part of Ekn 124; but I can also apply what I have learned in class. Discussion questions help me to find out what’s going on even in our country’s economy. So far I am really enjoying Ekn 124. What I like about the WebCT component is that I get to ask a question anytime and they are answered satisfactorily.”

This experience is supported by other students from the same questionnaire, who also commented on the use of e-mails in communication with lecturers, as opposed to making an appointment. The absence of personal contact does not seem to be a problem, as can be seen by the reference to “get a personal response”. Students also suggested that it felt like face-to-face communication, but without the boundaries of time, as seen from the following comments from the second questionnaire.

“Learning in a relaxed environment with no time constraints and convenient for communication concerning academic stuff with both lecturer and tutor.”

“It is an advanced and convenient way of learning 4 both the lecturer and the student. It is an electronic way in which the lecturer can reach the students so that they better understand the work discussed in class. “

“WebCT has served as another lecture who was contactable 24 hours.”

In Questionnaire three, the different tools from WebCT were rated. One of these tools was the use of tutors in the online environment. In the past, tutors for Ekn 124 were used to present three face-to-face classes, where tutorials handed in earlier, were discussed. The availability of the tutors, once again, featured in the answers to the questionnaire.

When asked to rank the feedback from the tutors on a scale of 1 – 5, ranging from totally useless (1) to very useful (5), 41% of the respondents said that it was fairly to very useful, whilst 23% rated the presence of tutors as fairly to totally useless. Again, the role that the tutor system plays with regard to convenience, is emphasised.

“Tutor was efficient and available all the time on WebCT.”

“My tutor was very good. She was always available. “

“Very good way of interacting with the tutor and lecturer.”

“Tutor was efficient and available all the time on WebCT.”

It is interesting to observe that of those who made additional comments on the questionnaires, negative comments relate solely to the comments of the tutors; the fact that tutors answered the questions late or not at all, (“Don’t get feedback on discussions”) or that the answers were too general (“well done”, “good answer”), were seen as patronising and did not address the discussion content.

By implication, the ineffectiveness of the tutors themselves was the reason for the negativity towards the system, not the use of the instrument or LMS tool. Positive comments referred to the tutor’s responding quickly and positively, and whether he/she asked additional questions. This was seen in the many comments relating to the tutors.

During the second focus group meeting, held on 21 September 2004, the tutors said that the LMS system was easier and more convenient, not only for the first-year students, but also for the tutors themselves. They also felt more comfortable being able to “hide” behind the computer screen, where they could be less vulnerable than in a class. This also implies better answers to questions asked, since tutors had the time to research answers, if they were not sure of a correct reply.

“Dis makliker nou – agter die rekenaar, maar daai kinders gaan check jou op, so jou moet goed weet wat jy sê. Dis hulle wat nou na jou terug kom, wat vir jou vra.”

(Translation: “It’s easier now – behind the computer, but those kids go and check up on you, so you must know very well what you are saying. It’s those ones who come back to you, who ask you.”)

In the past, the tutor classes took place in a classroom where they had to stand in front of the students and explain the tutorials. For many of the tutors, this was a harrowing experience because they felt vulnerable and exposed. Now that they were “faceless” and had time to think before answering, they were more at ease. This is what the tutor is referring to when she says “It’s easier now.”

The convenience of the system was also revealed during the focus group meeting with the first-year students which was held after the completion of the course, on the day of the Ekn 124 examination.

“It’s convenient just to go online, and ask them a question, straight away you get an answer, instead of coming here and they are not in the office, you don’t know their office time. “

This is in agreement with what Reid writes when he discusses online learning “With online access and a desktop or portable computer, students are never more than a phone call [or internet link] away from the classroom.” (Own insertion)

There were also students who felt that making use of the LMS actually took up more time, instead of saving time. These students referred to the time it took to do the discussions and the tutorials, and that they needed Internet access to participate in these activities. Most students reported not having Internet access in their homes and subsequently, even on the days that they did not have classes, they had to come in to the campus.

“Takes a lot of time to do tutorials and sometimes I have to drive all the way to campus to do it. It wastes petrol thus money.”

The third category that was identified relates to the emotional support that students experienced from the interaction with the tutors. Students felt that the communication with the tutors and the closer relationships that they forged inspired them to work harder.

4.2.3 Category 3: Motivation and Encouragement

This category is specifically related to the Affective domain. According to Huit (2001, online), “motivation is an internal state or condition (sometimes described as a need, desire, or want) that serves to activate or energize behavior and give it direction”. It implies the following:

- internal state or condition that activates behavior and gives it direction;
- desire or want that energizes and directs goal-oriented behavior;
- influence of needs and desires on the intensity and direction of behavior.

Students experienced the involvement of the tutors on an emotional level, as well as on an academic level and commented throughout on issues such as pleasing the tutors, wanting to improve performances or not wanting to disappoint their tutors. From the discussion that follows, one realises that each of the four definitions of motivation is applicable to the students' experiences.

The experiences of the students with regard to practical issues will be discussed according to the identified key concepts.

4.2.3.1 Lack of self-confidence

One of the reasons why students do not want to interact with the lecturer is due to a lack of self-confidence and fear of being labelled as ‘stupid’. This emerged in informal discussions with students, as well as from the preparatory questionnaire. Phrases such as “I was petrified to speak in class” and “After the lecture is over, she is bombarded by questions from other students constantly and I did not have the guts to go up to her in front of everybody” are indicative of the general feeling amongst students.

This is reinforced by comments in the questionnaires and the focus group discussions. One student commented in the first questionnaire:

“I see WebCT as interesting however it helps us to instill the skills, especially when we have to do some of the things ourselves, which means to give out our opinions on some aspects that are discussed in class, and its also nice for

those who does not have that confidence to ask or answer in class, more of freedom found in the discussion board.”

The above statement demonstrates this student's lack of self-confidence to make a contribution in class. The role of emotions in classroom participation is supported by the following statements from the same questionnaire:

“WebCT is the very nice thing I ever come across in my life, just learning electronically is very exciting. Also WebCT help us to ask or say anything without being shy.”

This also came out in Questionnaire 2, where several students mentioned it as one of the reasons why lecturers should make use of an LMS:

“The hybrid system is quite good in a way that when we are in lectures some students are shy to express or ask questions as they might be shut down by their fellow peers.”

The facelessness of electronic communication also enhanced the learning experience because students felt they could now ask questions without “losing face” in front of their peers. The tutors discussed the advantages of “faceless” communication during the second focus group meeting:

“Hulle sê dis “cool”. Die rede hoekom hulle nie die dosente kom sien nie is omdat dit nie “cool” is nie. Dis makliker om agter die rekenaar in te skuif, niemand sien hulle nie. Hulle kan meer eerlik ‘n opinie gee, want hulle is nie sigbaar nie.”

(Translation: “They say it’s “cool”. The reason why they do not come to see the lecturer is that it is not cool. It’s easier to sit behind the computer; nobody can see them. They can give a more honest opinion, because they are not visible.”)

The other tutors agreed with the above statement. The discussion on the tape confirms that they also felt shy when they were undergraduates, with comments such as “I HATED to have to go to the lecturer” underlining their agreement. The tutors furthermore, recognised that this group of students had a great advantage over them

because of the personal communication that the first-years have, and the confidence that they build through the use of better interaction. Even at post-graduate (4th and 5th year) level they still feel uncomfortable about asking questions and making appointments with their lecturers. One student made a pertinent statement during the second focus group meeting concerning the lack of accessibility that she experienced during her post-graduate studies.

“In my graad het ek nooit kontak gehad met dosente nie, Nou is ek Hons, ek het geen relationship met my lecturers nie, jy voel weer soos ‘n eerstejaar. Jy moet hands-on practical experience hê. Daar is baie mense wat daarmee suffer, want hulle voel die dosent is ontoeganklik. Na klas – dan is jy voor al jou maats, en jy ‘kruip’. En nou het jou toegang privaat tot die dosent! Die student moet net ingelig word, die possibilities is daar! Nou kan hulle net mail as hulle te bang is!”

(Translation: “During my degree studies I never had contact with the lecturers. Now that I am an Honours student, I have no relationship with my lecturers; you feel like a first-year again. You should have hands-on practical experience. There are many people who suffer in this way; they feel that the lecturer is not accessible. After class - then you are in front of all your friends; then you ‘suck up’. And now you have private access to the lecturer. The students must just be informed; the possibilities are there. Now they only have to mail if they are afraid.”)

During a private discussion with this specific tutor after the focus group meeting, she admitted that, had she been able freely to speak during her first-year, things would have been much better. (“As ek as eerstejaar my sê kon sê en so kon kommunikeer was dit nou BAIE beter.”)

If students first “say” something or make contributions in a non-threatening environment and find that what they have to say is of value, they might feel less threatened in other situations and find the courage to speak out. The advantage of first overcoming shyness in a comfortable, protective environment could help students to speak with confidence in their future careers.

4.2.3.2 Motivation and Encouragement

As discussed in Chapter Three, Holmberg's (1995) theory of distance education proposes that the characteristics of didactic conversation should be based firstly on the cultivation of a personal relationship between the instructor and student, so that study as a pleasurable experience and self-motivation may be promoted (Kelsy and D'souza, 2004). Furthermore, within the affective domain, students were responding to these comments and were motivated by these comments. The tutors spoke about the way in which their relationships with the students in their groups developed throughout the semester. They noticed how students seemed progressively to warm to them and form more intimate relationships with them. During the second focus group meeting, tutors spoke about the progress that they felt they had made in terms of building trust and rapport.

“Vandat ons die eerste keer die focus groep gehad het, tot nou het WebCT baie verander. Die mense gebruik dit makliker, hulle is meer vertrou, hulle vra meer vra en goeters”

(Translation: “From when we had the focus group for the first time until now, WebCT has changed a lot. The people use it more easily, they are more familiar and they ask more questions and stuff.”)

Holmberg's (1995) fourth postulate states that the atmosphere of friendly conversation favours feelings of personal relations according to postulate one (see above). Students made more use of the system as they became more confident and as they got to know the tutors. The positive effect that personal contact has on both the student as well as the tutor is evident in the reaction of the tutors when they speak about personal messages that they received or when students came to meet them personally. The following quotations are from the second focus group meeting with the tutors.

“Weet jy hoe lekker dit is as daar op die toets staan, tutor X, of aan die einde van die toets, thank you Y!”

(Translation: “Do you know how nice it is if there is written on a test, tutor X, or at the end of the test, thank you Y!”)

Daar is mense wat na die toets uitstap en na jou kom en sê, “Haai ek is so bly om jou te sien, en ek is so en so” - dis so lekker.

(Translation: “There are people who walk out after the test and come to you and say, ‘Hey I am so glad to see you. I am so-and-so’ – it’s so nice.”)

The enjoyment experienced by the tutors is evident from these two quotations. The murmur of agreement that was captured on the taped conversation also confirms that the other tutors felt the same way.

When analysing Group 2’s Discussion Board contributions throughout the semester, one becomes aware of the encouragement that occurred and how it motivated the students. It seems as if the students felt indebted to the tutor and that they were letting the tutor down if they did not perform well. Tutors also experienced this and commented during the second focus group meeting on the value of motivation.

“Motivation, nice messages, they really appreciate it. Die meerderheid hou baie hiervan, ek sou sê 80% van hulle hou rerig hiervan.”

(Translation: “The majority like it a lot; I would say 80% of them really like it.”)

The lack of visual clues in the online environment makes it impossible to “show” the students what type of person the tutor is and it is important to form a rapport with the students right from the start.

This comment from the second questionnaire underlines the necessity of a caring tutor in order to benefit from and enjoy the system.

“I find WebCT to be a really exciting learner friendly component. And I think I’m liking economics more than ever before this semester. Tutors online make it really worth studying Economics.”

4.2.3.3 Care

During the first week, tutors introduced themselves. They explained to the students that their role was that of support and assistance. They had to create a secure and comfortable atmosphere that set the scene for the semester. The following is an extract from Group two's messages for the first week. By telling them that she was a post-graduate economics student, she implied that they could trust her knowledge and ability in the subject, but by writing in an informal style, she indicated to them that she was open to a comfortable relationship and that she was not to be 'feared'.

Message no. 9

Posted by Tutor (Student number) on Friday, 23 July, 2004 1:28pm

Subject: Welcome!

Hi!

I am "Tutor" and will be your tutor this semester. I am currently doing my Honours in Economics and will be helping you through this course. If you have any questions or problems, please feel free to ask me. I will be available.

I hope we have a great semester together!! Good luck and enjoy!!!

Some of the students responded and welcomed the opportunity to have a dedicated tutor. This also set the tone for the rest of the semester.

Message no. 31[Branch from no. 9]

Posted by Student (Student number) on Wednesday, 28 July, 2004 11:42am

Subject: Welcome!

Tutor, I am happy and also glad that you'll be working with us especially me [be]cause I really want to have knowledge and better understanding in this course and hope to achieve more.

The tutor responded to this as follows, emphasising her role and her willingness to assist the students. This allowed the students to have a glimpse of her style of communication, and underlined her role as an assistant who was willing to help them whenever they needed her.

Message no. 75 [Branch from no. 31]

Posted by Tutor (Student number) on Friday, 30 July, 2004 11:39am

Subject: Welcome!

If you have any questions concerning EKN 124, please feel free to ask on WebCT. I will go through the relevant week [work] every week and answer any questions that might be asked.

I am here to help you, so do not be shy.

Have a great weekend and good luck!

At a later stage, more students joined. There were some problems with the registration of students who were either repeating the course or who were not registered during the first semester, hence the following indication from a student that he was late.

Message no. 57 [Branch from no. 31]

Posted by Student (Student number) on Thursday, 29 July, 2004 7:17pm

Subject: Welcome!

Hi Tutor, sorry for only responding now but I believe you were aware of the problems we've encountered to be registered with WEB CT. I'm "Student" and thank you very much for welcoming me as one of your students. Please be patient because I've never worked on WEB CT in EKN before. Bye keep well and see you!

Student

The reference to "see you" is yet another indication that the students seem to give the computer human qualities. The computer is merely an extension of the tutor and not a replacement. The tutor's message was once again one of reassurance and security and of building relationships, so that the student did not have to feel anxious about the fact that he had joined late.

Message no. 76 [Branch from no. 57]

Posted by Tutor (Student number) on Friday, 30 July, 2004 11:41am

Subject: Welcome!

Hi Student

Glad to hear your problems are sorted out. If you don't understand something, please feel free to ask me.

Hope we have a great semester together!

Tutor

After the first week, the discussions were focused on academic issues. This will be discussed during the second and third sections of this chapter.

Just before the test, the tutor posted a message of good wishes. Although this may be seen as general and not really of much use in terms of learning, it encouraged the students to work hard and motivated them, indicating to them that somebody cared about their performances and that it was important for the tutor to build good relationships. The responses to this message indicate that although not of academic benefit, it had immense value in terms of emotional support.

Week 4: Test week

Message no. 211

Posted by Tutor (Student number) on Friday, 6 August, 2004 5:35pm

Subject: Good luck!!!

Lots of luck for your test on Thursday at six!!!

Hope it goes very, very well!!!

Study hard, and everything will go well. I'll think of you!!!

Tutor

Message no. 243 [Branch from no. 211]

Posted by Student (Student number) on Tuesday, 10 August, 2004 4:19pm

Subject: Good luck!!!

Hi, Tutor

i've just want to say thank for your support to us and as you say you wishes us good luck i am going to try very hard to pass not to disappoint you and me and as well as my group members.

THANK YOU HAVE A NICE DAY!!!

The responses to this message affirmed the need for encouragement and indicated an appreciation for the concern showed. The impression that is created from the students' attitudes was that they did not want to disappoint their tutor and that it was also important for them to have a positive relationship with their tutor.

After the test, the following message was posted.

Message no. 263 [Branch from no. 211]

Posted by Student (Student number) on Friday, 13 August, 2004 10:47am

Subject: Good luck!!!

Thanks for your best wishes and myself and others did well in the test. I think I could have achieved high marks on that test if wasn't for some little foolish mistakes though I know that the marks are not yet out but I know that I performed well. I was very pleased to final see you in stabillis 4, I mean sometimes it's not nice to talk to someone you don't even know or seen her before through the computer.

The comment about "meeting the tutor" refers to the test venue where the tutor was invigilating. It indicates that some students are not very comfortable with the facelessness of the LMS and still prefer the human aspect to be present.

The reply from the tutor strengthens the relationship that she has been building and exhibits a warmth and genuine interest in their academic progress.

Message no. 269 [Branch from no. 263]

Posted by Tutor (Student number) on Friday, 13 August, 2004 11:35am

Subject: Good luck!!!

It's a great pleasure. I was pleased to see all of you as well. I hope you get the marks that you expect and are'nt disappointed when you get them...

Enjoy your weekend!!!

Tutor

Although the Chill-Café was intended for non-academic purposes, some students posted similar messages here as well. The personal association that they felt with

their tutor also comes across clearly in messages posted there, especially in phrases such as “not wanting to disappoint”.

The following comment was taken from Questionnaire three and sums up one student’s sentiment about his tutor and the way that she motivated and cared about them as follows:

“Our tutor was the best as she was continually worried/concerned about how we’re coping.”

Several comments make use of anthropomorphic qualities which is interesting in that these students saw the computer/LMS as a replacement for a human; the use of the word “talk” to the tutor and “seeing” the lecturer suggest that computers possess human qualities or that the human qualities traditionally linked to communication, no longer have to be present.

During the first focus group meeting with the tutors, the difficulty, as well as the importance of this specific task, i.e. to build relationships with the students, is clearly identified.

“What I tried now, is that I mentioned names, and say this is good, doing well. Motivate them and they might work harder, and those who don’t might want to try harder, so that their names are there as well.”

Holmberg’s (1995) third postulate maintains that it is essential for motivation to be present, in order for learners to attain their study goals. The motivational aspects of personal communication and the interest shown should not be underestimated. It can encourage a student who would otherwise not have been motivated, to study harder.

During the discussion session with the first-year students, the following comment was made, which encapsulates the value of interaction and two-way communication with tutors and lectures via an LMS, as experienced by students.

“Our tutor was wonderful. She posted things on time, organised extra classes. She really cared about what she did. I have heard from other students that their tutor was not good, and they did not get discussion, and they did not get any replies. And if it’s a one way discussion, then it’s not worth anything. The

tutor must be dedicated to what they do, must really want to do it. Then we can really learn a lot from the system.”

A second form of interaction was explored in this intervention. Not only do students lack interaction with the lecturer or representative (in the form of the tutor), they also do not communicate with one another regarding the content of the subject matter. Thus, the second research question:

What is the relationship between LMS use and students' experiences of peer interaction?

Table 16 encapsulates the key words and concepts as described and pointed out by the students.

SUB- QUESTION 2	Category	Domain	Key Concepts	Additional Descriptive words
Interaction with one another	2.1: Learning: Pedagogical Issues	Cognitive	Interaction	talk
			Understand	Learn, Find out, Share, Participate, Help
	2.2: Confidence-building: Social issues	Affective	Small groups	
	2.3: Application: Academic issues	Cognitive		

Table 16: Categories and key words: Peer Interaction

4.3 Interaction with one another (peer interaction)

According to Moore (1989), “Learner-learner interaction among members of a class or other group is sometimes an extremely valuable resource for learning, and is sometimes even essential.” “In large classes, students become isolated and solitary. Students are being denied the opportunity to negotiate meaning and explore half-

formed ideas” (Gibbs and Jenkins, 1992, p. 43). In previous semesters, Ekn 124 students attended two formal, TC lectures per week in groups which often exceeded 300, as well as two formal face-to-face tutorials per semester in groups which were anything between 50 and 80 in size. Apart from these lectures and tutorials, there were no other opportunities created by the department for students to interact formally with one another or to share ideas on the application of the content.

One way of dealing with this problem, is to try to control the situation by means of introducing the discussion of lecturer-set questions and tasks within fixed time-slots within lecturer-directed sessions (Gibbs and Jenkins, 1992, p. 49). However, due to a lack of classroom space on the campus of the UFS, this was not feasible. An alternative was to explore the use of electronic media. The fourth principle of Good Practice, which relates to Prompt Feedback, (Chickering and Ehrman, 1996), states: “A clear advantage of email for today’s busy commuting students is that it opens up communication among classmates, even when they are not physically together”. Hiltz (1994, p. 9) adds to this by stating that “...the formal goals of the VC are to improve both access to and the effectiveness of post-secondary education. ... The goals are also linked through a pedagogical approach ideally suited to VC: collaborative learning.”

The second research question looks at the establishment of learner-learner interaction among members of (this specific) class by making use of discussion forums in the LMS. It focuses on the use of collaborative learning as a pedagogical approach which is essential for good teaching and learning.

In this study, students were divided into twenty groups of approximately 35 students and were given a new discussion topic on a biweekly basis which was related to the subject content as discussed in class. Instead of using the email as the platform for communication, as stated by Chickering and Ehrman, the discussion tool was used; this allowed the discussions to take place in a public forum so that students could read one another’s contributions and comment on them.

Three patterns or sub-themes became apparent after the data were examined. These are:

Learning (This refers to Pedagogical Issues)

Confidence building: (This refers to Social issues)

Application (This refers to Academic Issues)

Key words, which emerged during the examination of the data, were used in the discussion of each category.

4.3.1 Category 1: Learning

Learning is the acquisition of knowledge, or the acquisition of skills. One learns when one comes to know something through education or experience. It is also a way of finding out something or teaching somebody something. The first category therefore focuses on elements of student interaction, which added to positive learning experiences.

The pedagogical influence of interaction with one another by means of an LMS will be discussed in the following section.

At the beginning of the semester, the lecturer gave students a definition of discussion groups and then asked them to state what they thought the role of discussion groups were.

Message no. 6

Posted by K Thomas (ECO1GRP1) on Monday, 12 July, 2004 3:20pm

Subject: The role of Discussion Groups

Discussion groups are also known as threaded discussion groups, electronic fora and asynchronous chat. They are very similar to newsgroups and mailing lists. Discussion groups are much more organised than live-chat and tend to be topic-related. Many users prefer discussion groups because they can think about their response before posting.

This was useful because it allowed students to write down their thoughts and to verbalise their expectations, but it also allowed the tutor to comment on their ideas and to rectify any misgivings that might have existed. It therefore ensured that students were in the right frame of mind before the discussions started.

Group 1 week 1

Message no. 30 [Branch from no. 26]

Posted by Student (student number) on Wednesday, 28 July, 2004 11:33am

Subject: The role of Discussion Groups

“My understanding about the group discussion and the manner in which group members should work together, is that we should all partake or participate by expressing our different opinion in every topic therefore at the end we'll understand and learn from one another and respect other people's opinion.”

It was also an ideal opportunity for students to “try out” the discussion tool and to make sure that they understood what was expected of them.

4.3.1.1 Interaction

One of the themes that came through strongly is that students could ‘talk’ to one another and discuss their thoughts on economic issues. Comments made throughout the instruments were positive with regard to this kind of interaction. From the use of the word, ‘talk’, it seems that students approached the LMS in the same way they would any face-to-face conversation.

In response to the question, “What is the most exciting aspect of WebCT?” in Questionnaire one, students often mentioned interaction with one another. They also referred to the fact that it led to more than mere talking, but also assisted in learning.

“Interaction with tutor and fellow students – often fair debates. “

“Chatting, like chill-café, and the fact that we can interact even though we don't really know each other.”

This comment already implies that this student experiences the comments from fellow students in a positive light; that other people's ideas add to constructive learning.

Under the general section from the same questionnaire, students elaborated on the interaction experienced. In the following comments, students indicate that they

cannot initiate interaction by themselves and that they need outside intervention to force them to “speak” to one another. However, the recurring theme is that this interaction is important in the learning process.

“Help us to interact with other students, which is something we cannot do personally. You learn many things from other students that you would not have learnt alone. They help us get information that we don’t know from others.”

“I am an interactive person who likes debating and it really made me like economics more as I can do it in and outside the classroom. Discussion board is helping to see how other people view things that interaction is really important.”

“Personally, I think it’s too much work, but exciting at the same time cause I gain more computer experience. Nevertheless I get to interact with people, learning to work in a team.”

As can be seen from the last comment, all students were not equally positive and enthusiastic about the added component of discussions. By far the majority of students who made negative comments, referred to the time factor; that it took up too much of their time. Nevertheless, as is the case with the above comment, they were quick to point out that even though time was an issue, there were still positive learning advantages in participating in the discussions. This is confirmed by comments taken from Questionnaire two, where the advice given to future users of the blended learning system included facilitating interaction between students.

“I think the WebCT has helped a lot especially in reaching every student with announcement and interaction with other students by weekly discussion topics to realise one’s abilities and level of study to catch up with other student’s abilities.

The online discussions must definitely be included. Not only are students allowed to give their opinion on the economics world done in the module but also on the economy of SA. The discussions allow students to think critically and enable them to grasp the work better – 80% of the knowledge you gain is by explaining it or discussing it.”

Also in Questionnaire three, students viewed the discussions in a positive light and pointed out the help that peer interaction gave them. Knowing that other students also battle with the same work and being able to ask one another for explanations seemed to act as a motivating factor.

“Interaction with my classmates has helped me a lot.”

“Interact, because to my surprise we experienced same problems.”

In the first-year focus group meeting, students referred to the small group interaction, the discussions and the advantages thereof.

“One thing, starting economics and this discussion online, it also helps in a way you interact with the outside world, people hold their discussion on the interest rates and inflation, of late we have started to interact, all the stuff I have learned.”

The second key concept within the pedagogical section of peer interaction focuses on the fact that students were able to understand issues better if they were able to share them.

4.3.1.2 Understand

Students' comments supported this statement and showed that their level of understanding economic concepts deepened through the use of a different learning strategy i.e. that of collaborating with peers. (From Questionnaire one: general comments).

“It is interesting to see different view points from other students on the discussions and helpful when the qualified tutor corrects us.”

“I think it is going to help us to pass EKN 124 because we get more information about the course and other discussion helps very much because we compare our discussion and get tips from others.”

With reference to the most exciting aspects of the use of WebCT in Economics 124, students stated the following, which reveals a better understanding/learning of the content:

“I learned to use the internet and communicate with tutor and a lot from other people’s discussions.”

“Discussions are interesting, learning about what other people have to say about the economy we always learn from them.”

“The discussion really has improved my understanding in EKN 124 compared to last semester.”

“In WebCT since we had discussions, I started enjoying it, I get to learn more without going to class.”

The last comment is particularly noteworthy, since this student evidently does not enjoy the classroom situation and has a different learning style, which does not necessarily include class attendance. Thus, the inclusion of discussions on WebCT allows for the students’ individual learning styles and eventually for personalised learning.

In the general section of Questionnaire one, students also commented on the value of learning from one another’s viewpoints. Students who referred to last year (when WebCT was used only on a minimum-presence base, i.e. only for notes and comments and not for student interaction) are those who were repeating the course. They were in a very good position to compare the different systems and their comments are of particular value to this section.

“Definitely I am impressed by how you can learn from other students because we have different views and you know what your groups members have to say on a particular topic.”

“I think that in general it has both advantages and disadvantages. The good thing is that we learn a lot and its fun to participate in discussions and hear what other people’s opinions are and learn from that.”

“It is a convenient way of learning because you can go and answer the questions any time and gain a lot of information at the same time. You get to understand a lot of concepts relevant to the subject more clearly because you get a lot of opinions from different people.”

One notices again the theme of convenience, as was also seen in the first section of this chapter.

The general feeling of learning from one another is also emphasised throughout the comments from Questionnaire two, where students adamantly stated that the value added through the discussions with other students, should remain in the course structure. Words/phrases such as “awesome”, “helped a lot”, “inspired” and “very good”, once again underline the positive learning experiences gained from interacting with fellow students. The following quotations are but a few of the many constructive comments made by students about the weekly peer discussions, taken from Questionnaire two.

“The group weekly discussions for Ekn 124 really helped me a lot to improve my marks and understanding for Economics. They gave the ability to learn from other students as well and not from the lecturer only. I think you must continue to have them as part of learning Economics.”

“WebCT is very awesome, every time I go through it and discover what my fellow-mates have to say in the discussions, I really learn a lot and I benefit a lot – I like it! The whole weekly discussions are awesome.”

“I find WebCT as being very useful because my discussions in the discussion forums help me understand what I am dealing with in Economics. I find the topic discussions very interesting and help me look at Economics or adjust to not just the lectures but in my social life too.”

“Compared to last year I can say it’s much better now because we can share and contribute to the discussions with fellow students. So we can learn more from what other people say.”

During the first-year focus group meeting, students also referred to the improved understanding that was gained from the group discussions. They furthermore referred to the fact that the discussions added to the classroom explanations; that some students understood concepts better when explained during class, but that all could benefit from this by interaction with one another.

"We got an opinion from other people, I don't know, I understand from other parts that we did in class, other students would talk about it and even add some, so I understand more."

"There was time before the conclusion, I could check what other people have said, before I could complete, I could base mine on other people, and write something much better."

On the negative side, students again referred to the time issue, where they felt that the discussions took too much of their time and mentioned this as the most frustrating component of WebCT.

However, even when some students referred to the negative aspects, they also pointed out the positive advantages with regard to grasping concepts.

"I stay off campus and it's a 20 min. drive, and if I did not have classes on a day, I had to take that 20 min. drive to come to the computer lab, and its time consuming. It is a quick process of getting information, but its time consuming in the traffic. That was frustrating for me. But you learn to deal with it and make it part of your routine."

This view was not shared by all the students. Comments referred to the time issue as: "More than enough time for handing in tutorials".

During the first tutor focus group discussion, tutors also mentioned the way in which students help one another.

"Daar is wise guys wat al die vrae antwoord. Daar is 'n paar wat mekaar help, wat mekaar antwoord."

(Translation: “There are wise guys who answer all the questions. There are a few who help one another, who answer one another.”)

This comment from a student, from the third questionnaire, sums up the general feeling about the usefulness of discussions for interacting with and learning from peers.

“The best part of WebCT is the discussions – if your tutor gives you work you actually get to know something you never knew from your fellow group mates related to work.”

4.3.2 Category 2: Confidence building

The word, confidence, refers to the belief in one’s own ability. The second category therefore focuses on being able to speak freely to fellow students and having a belief in your own ability to be correct. The recurring pattern here was the reference to small groups.

Small groups

In the focus group meeting with the students, the idea of getting lost in the crowd (specifically in this subject with its large number of registered students), was countered by the advantages afforded to one, if one is part of a small group.

“I think a small group is much better because if you are huge, they won’t recognise all the contributions because they will maybe only concentrate on half the people. So if it’s a small group then all of you will participate.”

This also emerged in the First and Second questionnaires respectively, where once again, the shyness of students prevented them from actively taking part in class, whereas the discussions allowed them to speak freely from the security of anonymity.

“Also the online discussions are fantastic because you find students who are shy to voice their opinion in front of a lot of people, now this becomes their chance to say whatever they want to say without facing anybody.”

“Sharing the knowledge among group members, you gain more confidence and become acquainted with the economic issues.”

Other students' opinions also matter. Students view them as a positive contribution to their own learning, indicating that peer interaction adds to confidence building with regard to understanding the subject matter.

“The discussion forum is a really good idea as it helps students in a particular group know what other or how others view economics.”

The tutors pointed out at their first focus group meeting the advantages of learning within the secure environment of facelessness and with the added advantage of confidence, could only be beneficial for learning.

“She (student's name) likes the online because they are all noticed. That personal contact in that way is good, and they can say anything and get feedback, it's not like in a test. And they can all see what the others say, they can compare themselves, and see how they improve, they benchmark themselves. You can really give an opinion and be confident. If you have an idea you can say it people respond to that that is a good feeling.”

They also commented on the social aspect of the groups; that it allowed students to meet one another which would not have happened had the smaller groups not taken part in discussions online.

“The most interesting thing about the discussion is that students get to know each other and they get a chance to learn from each other in terms of knowing how other people are answering the questions.”

All the students, however, did not feel the same towards being forced to participate in online discussions or to be part of a group. The first message was taken from Group 2's discussions and it clearly comes from a most enthusiastic student.

Message no. 221 [Branch from no. 9]

Posted by student (2004119323) on Sunday, 8 August, 2004 2:45pm

Subject: Welcome!

Thanks TUTOR 4 a nice welcome, from me guys of the first chosen group I

say

Weeeeeelcome,much loooooove!!!!

However, all students are not equally enthusiastic by the idea of working in a group! The following message is from a rather disgruntled student who does not believe in the advantages of learning and participating in groups.

“The group thing! NOT a good idea, especially that we’re going 2 be evaluated 4 it [how many times do I ever engage in it] Doesn’t make sense VIVA TO INDIVIDUALISM.”

“Higher education institutions should educate students to become well informed and deeply motivated citizens, who can think critically, analyse problems of society, look for solutions to the problems of society, apply them and accept social responsibilities” (World Conference on Higher Education, 1998, online). A student cannot merely rely on rote learning and regurgitation of facts, but has to be able to apply his/her knowledge in a socially responsible manner. Furthermore, Fourie (2001, p. 1) states emphatically that in the study of economics, students need to think and reason about real-world economic events and that teaching should strive to encourage an “...active way of thinking, not dry, static theory”.

The third category considers the use of the LMS to enhance the integration of theory and active application.

4.3.3 Category 3: Application

Comments made by students also referred to the fact that economics is a subject that needs to be linked to real-world issues and must not be restricted to being a textbook based, theoretical subject only. One of the advantages of using the discussion board is that students are able to discuss real-world issues with one another and apply the knowledge/theory as discussed in class. The advantages of communication and linking of ‘real world issues’ with the theory, is pointed out in many of the comments made, as may be seen from the extracts below.

When asked what the most exciting aspect of WebCT was, students’ reactions were overwhelmingly positive. The interaction and discussion with one another on

situations that were actually taking place seem to have stimulated students' interest in the subject – something that could not have happened in the classroom situation where there are too many students and where the protection of facelessness does not happen.

“U get a chance to find out what other people think about economics and matters affecting us on general economy, pose questions on discussion board.”

The following observations were taken from the First questionnaire (general section).

“Each of us has a chance to interact with other students and possible creating an atmosphere of the outside world, I guess it really boosts one's capabilities and encourages one to do his part, which at the end of the day is mission accomplished.”

“What helped me improve more with my learning is the discussion topics because they made me study more and understand what economics especially practical one is all about.”

“People provide valuable and interesting points which have broadened my knowledge and perspective about economics.”

In Questionnaire two, where students had to give advice on the integration of WebCT into a course, many students referred to the discussions and how talking to other students about the work, and applying it to practical situations, actually helped them understand the content better.

“What helped me a lot is the discussions concerning real world data/info in which one had to express oneself by applying economic theory as well. More of a ‘outside the classroom thing’.”

In addition to the discussions, it also forced the students to think before they made their contributions and to consider what they had to say, since they felt a responsibility towards the group and therefore, had to make sure that what they said, was correct.

"WebCT has been very helpful especially the discussion part where I have to read a lot before making contribution that will benefit everybody in my group. It also helps us to stay on top of things, because we become very observant at the economic phenomenon happening all over the world. I would therefore recommend the use of the discussions on the WebCT."

The next comment, made at the first-year focus group discussion, is a practical example of how a student went about making use of the discussion board to get assistance with work that was discussed in class and how the group assisted in linking the theory to the practical discussion.

"For instance in the case of imports and exports. I went to the WebCT discussion group and asked about the causes of inflation and how to keep our economic stable, I think I we can continue using WebCT we will have a good knowledge of what is happening in the economy."

The online discussion allowed for this student, within the safety and comfort of the group, to make sure that he/she understood the theory and that the application of that theory was correct.

From Questionnaire three, it also emerged that being able to link the theory/classroom work to the economic situation is very valuable, as seen from these brief statements about the discussions and the applications thereof:

"They actually stimulated my knowledge on economics. One needs to know more about the real world."

"Discussions and Tutorials stimulated my ability to think critically and well-prepare for the lecture."

Students confirmed the positive value of discussions in the focus group meeting by making the following comments. The words in brackets refer to general comments of agreement that could be heard.

“Well most of the questions posted were very practical, hmmm, repo rate, things that just happened [yes, true] so they were discussing something very practical at that point in time.”

“It makes you interested in the subject (yeah) because it make you realise I am not just earning things out of a book, you know this actually applies to the real world and WOW, and I can do the same thing as the Minister of Finance is doing out there. [laughter from several students] It makes you feel good about the subject and it makes you really want to do it.”

During the fifth week of the semester, the topic for the week was the South African business cycle. Whilst the theoretical aspects included the different phases, the measurements thereof and the indicators, one of the outcomes of this section is to discuss the situation with regard to South Africa’s business cycle and to make use of the theory to try and establish the current position of the South African business cycle.

Students were referred to several websites which they had to consult and then they had to link the theory with the data in order to answer the question. With this particular topic, a lot of discussion took place, since this is a subject that has many different answers, depending on the way in which the economic indicators are interpreted. The issue of a weak vs. a strong currency and whether it is advantageous for the South African economy, is one example which illustrates how students interacted with one another in an academic forum, while trying to explain the content to one another.

The question/discussion topic for the week was posted by the Tutor.

Message no. 266

Posted by Tutor (student number) on Friday, 13 August, 2004 11:24am

Subject: Discussion topic Week 5 (1)

*Go to the website of the South African Statistical services.
(<http://www.statssa.gov.za>)*

Find out what the latest information is on economic growth, unemployment, CPI, PPI and the size of the population. Now go to the website of the SA Reserve Bank. (<http://www.reservebank.co.za/>)

Look at the latest information available on the home page. You will also notice that the interest rate is down. Read the following: 2004-08-12: Statement of the Monetary Policy Committee

Now comment on the state of the South African business cycle. Do you think that the South African economy is in a trough, upswing / boom, peak or downswing/recession? Substantiate your answer.

One of the first contributors made a statement about the manipulation of the US dollar, something that was not discussed in the lectures during the week. This student also referred to another article that was not referred to in the week's topic, but was relevant to the discussion. Students were, therefore, starting to look beyond the boundaries of the textbook and the tutor's instructions and reading more widely than was expected.

Message no. 274

Posted by (student number) on Monday, 16 August, 2004 10:08am

Subject: CONSUMERS' PARTY ROCKS ON

Consumers' Party Rocks On was the headline in The Sunday Business Times dated 15 Aug 2004. As we know, that as the interest rates dropped, the retail stores increased their sales tremendously. Economists believe that the interest rates will remain steady for the rest of the year and there could be further cuts if the oil prices cool off. A US analyst admitted that that US had imported a ton of stuff, so the dollar will continue to weaken.

Although this particular contribution does not answer the question, it does point towards issues applicable to the discussion, but, more importantly, it touched on something that is vital to the economy and something that students have difficulty grasping – the relationship between currencies, economic growth and inflation. The issue of the currency is questioned by a number of students, which may be seen from these two messages.

Message no. 279 [Branch from no. 274]

Posted by (student number) on Monday, 16 August, 2004 5:53pm

Subject: CONSUMERS' PARTY ROCKS ON

If the dollar weakens are we South Africans going to enjoy that or is something going to be done about that? Because it is not all good for us if the dollar is weak.

Message no. 280 [Branch from no. 274]

Posted by (student number) on Monday, 16 August, 2004 5:56pm

Subject: CONSUMERS' PARTY ROCKS ON

Is it really that good for our country when the dollar is weak? I mean should we really rejoice over that given that somewhere somehow it is not good for us.

The question is addressed briefly by other students, who go on to explain the result of a weaker dollar.

Message no. 283 [Branch from no. 282]

Posted by (student number) on Tuesday, 17 August, 2004 12:21pm

Subject: CONSUMERS' PARTY ROCKS ON

Because, e.g, some mines were closed down because it was expensive to produce but cheap when selling so that declines economic growth.

Message no. 443 [Branch from no. 274]

Posted by (2004071052) on Friday,, 3 September, 2004 11:18am

Subject: CONSUMERS' PARTY ROCKS ON

*Message 274 on Monday, 16 August, 2004 10:08am, (2004150013) writes:
(Student quotes message 274 and adds the following:)*

For people who import is not good for business, couse now the prices will increass,but for business that export is very good for them, they are profit will increass so this is not a balanced equastion.

Even though the terminology is not always correct, the gist of the answer is and this assisted in the understanding of the topic. Perhaps the fact that it was NOT written in complicated academic terms, also added to the understanding of the problem.

According to the third questionnaire, the majority of students indicated that they experienced interaction with other students in a positive light. This is illustrated in Figure 9.

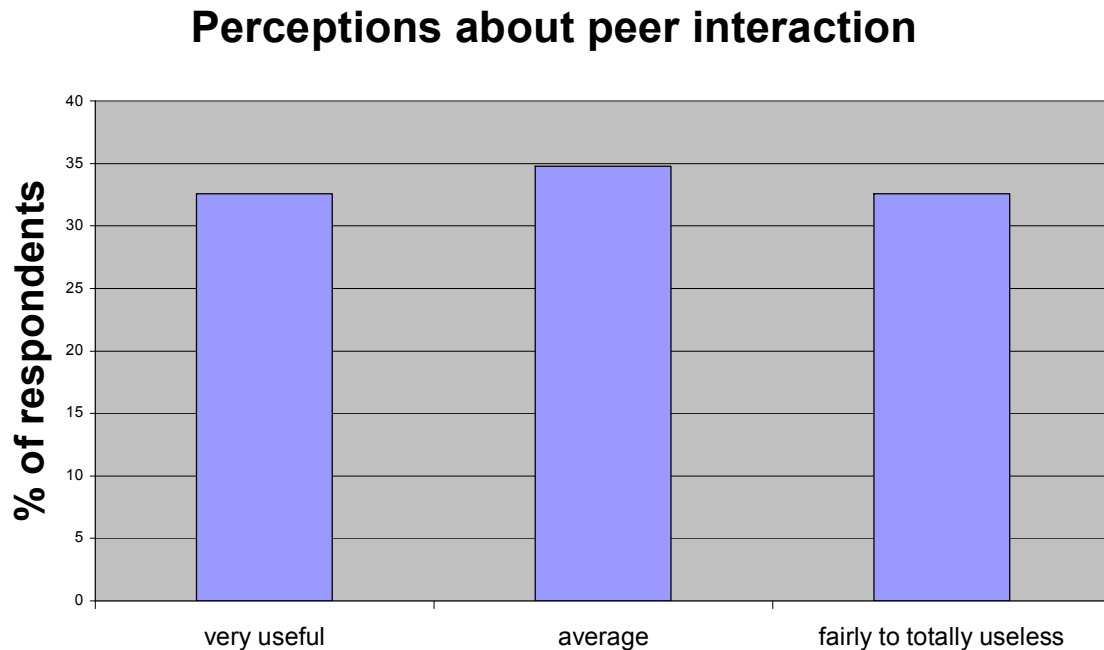


Figure 9: Students' perceptions about the usefulness of the peer discussions.

Almost a third of the students who completed the questionnaire (32,6%) stated that interaction with other students was fairly to very useful, whilst another 34,8% indicated that it was average. The rest (32,6%) state that it was fairly, to totally useless. It therefore seems that interaction with other students did add to the learning experiences of the Ekn 124 class.

Overall it seems that, at best, students benefited to some extent from the interaction with one another. At worst, it did not detract from their learning experiences. In Group 1 there were a total of 559 messages in the various discussions. Taking into account that there were altogether 20 groups interacting simultaneously with their respective tutors, the amount of interaction that took place is much more than it would have been without the use of the LMS.

This statement made during the Second questionnaire, seems to sum up the value of the discussions, the application and the added learning that took place.

“I think it rightly done especially for Ekn 124 student – meaning that it’s the extra mile that has been take to make sure that we get through this course with an idea as ekn 124 does not only ends in class but is available anywhere/anytime.”

The last form of interaction discussed in this chapter relates to content issues. Students need to make better use of the materials available to them, but also need to be able to choose between different sources of information. The last sub-question of the study is as follows:

Sub-question 3: What possibilities exist to encourage students to interact with content by making use of an LMS?

Table 17 summarises the key concepts and descriptive words which were used to analyse the data.

SUB-QUESTION 3	Category	Domain	Key Concepts	Additional Descriptive words
Interaction with content	3.1: Preparation	Cognitive	Prepare	Before class
	3.2: Notes/note-taking	Cognitive	Notes	Listen, follow in class
			Concentrate	
	3.3: Continuous learning	Cognitive	Understanding,	
			Self-study/study	
			Practical/South African Economy	
			Tutorials	
3.4: Deeper learning	Cognitive Affective	Application		
		Interested		
3.5: Additional information	Affective Cognitive	General information, communication		
3.6: Generic skills	Psychomotor	Computer literacy/computer user		
		Learning/life skills		

Table 17: Categories and key words: Content interaction

4.4 Interaction with the study material/content

“The fundamental idea underlying Engagement Theory is that students must be meaningfully engaged in learning activities through interaction with others and worthwhile tasks” (Kearsley and Shneiderman, 1999, online).

Fourie (2001, p. 2) asserts that the biggest problem with economics students is their inability to link theory with real-life situations, something that is exacerbated by the fact that students do not interact with the material and lack the ability to analyse data. “I realised that the typical economics graduate might have a Master’s degree in Economics – or even a PhD – and yet not have the ability to analyse the basic operation of the economy...This typically leads to the accusation that universities provide ‘ivory tower’ training, with limited applicability in practice.” This sentiment is echoed by several other authors of economics textbooks who have changed their approach to one of allowing the student to interact with the content (Mankiw, 2004; McConnell and Brue, 2005).

One of the goals of the pre-course informal questionnaire which was discussed in Chapter Three was to ascertain whether students interact with the course content on a regular basis, and if so, how much time is spent on the course material. One has to bear in mind that Ekn 124 is a 16 credit course, which translates to 160 notional learning hours. Students were asked, amongst other things:

- How much preparation do you do for each class?
- How much time do you spend after each class going through the work covered?

Options were given as follows:

- None
- Less than 1 hour
- Between 1 and 2 hours
- More than 2 hours

234 students from a group of 601 registered students completed the questionnaire. This translates into a 39% response rate. The results were as follows:

Hours spent

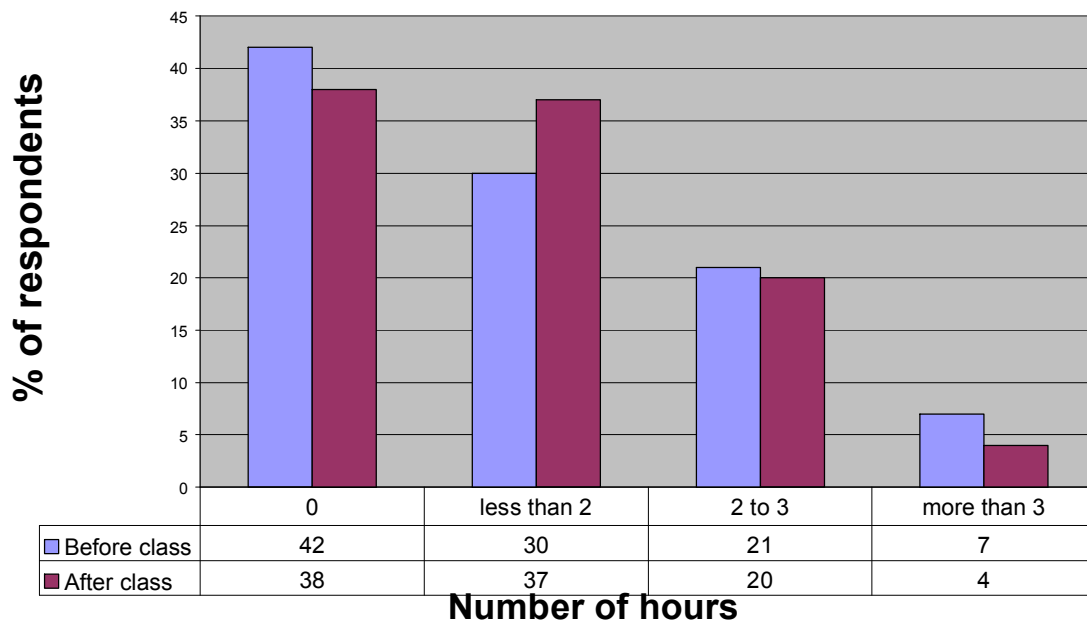


Figure 10: Hours spent on study material.

Figure 10 illustrates the following:

By far the majority of students (72%) do very little or no preparation for lectures and an even larger group (75%) does very little or no work after the lecture. Almost half of the respondents hear about the work for the first time when they attend class. For 38% of the respondents, the first time that they interact with the work after having heard it in class, is when they prepare for a test.

If one keeps in mind that only 39% of the registered students attended class on that particular day, the amount of interaction with the study material is dismal for this particular group. The lack of time spent on the subject matter was something that had to be addressed, if one wished to get students to engage in deeper learning and understanding; not mere regurgitation.

The last section of this chapter analyses students' use of the different components of the LMS and the perceived added value to learning afforded to each of the components. The following features of the LMS were used during the semester:

- Discussion board

- Section for general questions
- Tutorials
- Additional notes on chapters
- General notices on the notice board
- Availability of notes to be used during lectures
- Links to other websites associated with the course material
- Computer literacy

During the data analysis five of these features were mentioned repeatedly, namely:

Notes; Quizzes; Discussion board; General information; and Computer literacy.

Within the context of the identified keywords, students' experiences of integrating the LMS into their learning will be discussed.

4.4.1 Category 1: Preparation

The first category investigates the use of the LMS in assisting students to prepare more effectively for lectures. Because of the availability of notes, students had the opportunity of reading through the outcomes for the lecture and the main points which were going to be discussed.

4.4.1.1 Prepare

The key words identified concerned the issue of being prepared for class, of having some knowledge of what is going to be addressed during class and how using a Learning Management System assisted in this. Students stated that in the past, they did not prepare for class since there was no incentive which forced them to do so. Since having to do quizzes and discussions, and having the notes to assist them, they found that they actually prepared more thoroughly for classes and they felt that it assisted them in the learning process as it also helped to prepare for tests. The following comments were taken from the First questionnaire.

“Good way to help us improve our marks and help us prepare for class.”

“The component is very effective. It’s like a second lecture. The notes help us prepare before class.”

“Notes help having learning objectives, help to prepare for class and tests. What I have gained from this is the realisation that preparing regularly for class is crucial.”

“WebCT is really helping more especially the notes as they’re helping one to know what the next lesson will be about so one will prepare basing oneself on that.”

“The notes that are given on WebCT are also helpful in preparing for class and makes studying easier as it provides the outcomes.”

Having the outcomes before the lecture helped to give direction to the students, so that they knew beforehand what to expect from the class and what to focus on. It also helped them when they studied for a test, as they knew what the important issues were. This student clearly believes that by using the LMS, her results did (and possibly would, in the exams) improve.

“The notes that are on WebCT help me a lot when I prepare for a test and exam, my marks have improved from the day I started using them.”

In Questionnaire two, the following were stated regarding preparation:

“I’d say WebCT helped me most in preparation for tests. Since I don’t usually prepare for class, the tutorials left me with not option, but to read through the work in order to be able to answer the tutorials.”

“First of all the weekly discussions and tutorials make you prepare more or learn more about the previous lectures. Tutorials are fascinating because for me, doing my tutorials made me understand more and do more research about the work. WebCT was quite used for when it came to the notes and previous tests because you knew for that you could find previous tests on it.”

As in previous sections, the issue of saving time and easy access was mentioned. In the following comment, it is distinctly linked to more effective learning.

“WebCT is very fast, time-saving, effective and most of all easy to use way of learning. Daily class notes are always pasted (posted) for reference purposes, and as such there is not much paperwork needed and that makes it time saving.”

Shorter comments made in Questionnaire 3 also refer to the notes, which allow an overview before class and the ease and speed of the use of the LMS.

4.4.2 Category 2: Notes/ note-taking

Traditionally, students attend classes; lecturers present the information by means of a teaching resource such as an overhead projector, or more likely, PowerPoint slides.

“Copying down words from transparencies is not the most productive of learning activities” (Race, 2001, p. 129). However, the danger of using transparencies is exactly this - students attend class to copy down the notes and then do not have the time in class to listen to any explanation, or to digest what has been taught. According to Race (2001, p. 211), this is especially true for people studying in their second language. These students “...are disadvantaged (in the classroom) in that they may be spending much of their energy simply making sense of the words, with little time left to make sense of the ideas and concepts.” Making the background notes available as resource material before class via WebCT, was one way of overcoming this problem, which allows students simply to add to the notes and then work through them in their own time and at their own pace. As seen by the comments made, this was one of the most valued features of the intervention.

Students identified receiving notes as one of the most exciting aspects of WebCT in the First questionnaire.

“The fact that we get a framework, with the notes, to work from is very good.”

In the focus group meeting, the fact that even when a student misses a class, he/she can still catch up, was discussed. The comments in the background indicated that the others present also agreed with this statement.

“I think we got notes posted, we got all our class notes, If for some reason you missed a class, because it happens, it happens, you knew you were not entirely behind, because you could go to WebCT, get you notes, you could work through it a lot, and that really helped a lot, you knew you weren’t missing out on something entirely.”

“What I really liked about the lecture is that we got the notes before class. So you had an idea of what was going to happen in class. Even if you did not comprehend it first time around, so it actually helped a lot.”

Very often, students have not yet learnt to make summaries and notes and come to tertiary institutions without having learnt that skill. Students in large classes manage better with the workload if they are presented with a structure. (Ward and Jenkins, 1992, p. 29) The issue of making summaries and the aid of notes in that respect was an important topic in the Third questionnaire.

“It is a summary of my work which decrease my work load.”

“Helps me to make my own notes.”

In the past, one of the criticisms of the Ekn124 course has been that too much work has to be covered in too little time and that the work is ‘all new’ to the students. Students’ comments on the value of being able to listen in class, to concentrate on the explanations and to add/write down only additional information, seem to show that this method could be successfully used in overcoming the criticism.

4.4.2.1 Concentrate

From Questionnaire one, the most exciting aspect of WebCT, the use of notes as a way of improving understanding in the classroom was referred to several times.

“I think that the availability of notes in WebCT makes it very easy for students to concentrate in class.”

“Notes, they help us listen in class, rather than jotting down notes while the lecturer is teaching.”

Furthermore, in the third questionnaire, explicit reference is made to the advantages of concentrating in class and the effectiveness of making use of notes received before lectures.

“I find WebCT very interesting and useful because I’m able to find notes that I missed in class. Now I can concentrate more on what the lecturer is saying than on writing notes. It also forces me to think about economic issues and to listen to the news to keep up to date. It also broadens my mind reading other people’s opinions on economic issues.”

“I think that WebCT is a great help to us because of the tutorials are practice for the exams. Notes help big deal because sometime we can’t take notes quickly in class. All in all WebCT does help.”

4.4.3 Category 3: Continuous learning

Because students had to participate on a weekly basis in the discussion forum and had to hand in tutorials in the form of online quizzes over and above the two semester tests, they had to be knowledgeable about the content of the subject matter on a continuous basis. Students commented extensively about the fact that they had to know what they were talking about before they could take part in these activities and that it helped them to benchmark their understanding of the work.

4.4.3.1 Understanding

“Discussions topics for each week should be included because that way you can see how well the students have understood the chapter that was dealt with in class.”

In the following comment, it is clear that this student understands the problem of large classes and that it is impossible for the lecturer to reach every student in every class. The issue of understanding the work, but having to do extra work on their own, is something that began surfacing increasingly throughout the different stages of data collection.

"I think the discussion topics were very good to helping me understand the work we do in class and studying for test was very easy because we did the things already in the discussion. I think the discussion or online topics reached out where the lecturer could not reach and it make us think aloud. WebCT added a lot of value to my knowledge of economics and helped me to understand not only the theoretical part but the application and the work in real world situations and observations."

4.4.3.2 Self-study/study

As was seen from the pre-course questionnaire, self-study and working through the notes after class was not something that students did on a regular basis. However, the only way in which something can be learnt is by practice and repetition (Race, 2001, p. 28). As opposed to the traditional "transmission model of teaching delivery and instruction" (Damoense, 2003, p. 27), by being continuously assessed via online quizzes and discussions, students had to take more responsibility for their own learning experience and had to spend time on self-study. This was pointed out in all of the questionnaires.

"Very nice because it forces people to go into their books even if they don't want to. A person can't go to discussion board without having studied."

"I like it because it promotes a sense of self study and the fact that there are discussion forums tops it all because you share and help it others. Again, academically, it gives a positive and exciting new way of studying." (Q 2)

"I would definitely recommend the online tutorials and discussion although they are a nag because it forces students to actually open our books and study, which we otherwise would not do unless we were writing test or exams." (Q 3)

The notion of self-discipline and being informed, were also issues that students mentioned in Questionnaire two as part of the LMS learning advantages.

"It is forcing us to go over lectures which benefits us when tests are approaching"

It really helps us a lot because those works are seen as a part of homework and they make use not to forget the stuffs which we have done in class. I think it teaches every individual to do that little bit extra and to revise the work on a weekly basis, it also teaches students self-discipline to a certain extent.”

In the second focus group meeting with the tutors, one tutor described how using the internet helped one of the first-years to find additional information and to take responsibility for his own learning.

“Een van my vriende doen nou 1st jaar en hy wou hê ek moet hom help, maar ek kon hom nie help nie! Ek moes net die antwoorde kry, dan kan ek dit verduidelik. Toe bel hy my en sê ek moet nie worry nie, hulle klomp het rondegelap op die internet, toe lees hulle en doen bietjie ekstra werk en toe kry hulle die antwoorde, nie die regte antwoorde nie, maar toe verstaan hulle dit en sien dat dit nie so moeilik is nie, hulle moet net bietjie ekstra werk doen.”

(Translation: “One of my friends is now a first-year and he wanted me to help, but I couldn’t! I first needed the answer, then I could explain. Then he called me and said I need not worry; they searched on the internet, read a bit and did some extra work and then they got the answers – not the correct answer, but then they understood it and saw that it was not that difficult, they just needed to do a little bit of extra work.”)

4.4.3.3 Practical/South African Economy

As part of the government’s desire for “...graduates who can demonstrate a strong array of analytical skills” (Ministry of Education, 2001) and the need for liberal education, students used the LMS to enhance their integration of theoretical and ‘real world’ economics. By using the discussion tool, students were able to make use of the information from class and apply it to practical, contemporary economic issues. Students remarked that they found the discussions motivated them, helped them to understand the work better and although they were time consuming, they assisted in learning content by linking with it. These are thus higher-order cognitive skills as postulated by Bloom (1956).

“The one of the most useful things about hybrid learning systems is the weekly discussions we have on WebCT, because it helps and stimulates your thinking about relevant subjects, and because it forces you to refer to the economic activities happening around the country.”

“We get more exposed to what is happening in the real world. Through the discussions we get something that could be regarded as practical work. Here we don’t only read or absorb what we were taught. We get to put it into use.”

“The discussions has really helped me a lot because most of them we were doing things of SA economy which stimulated my knowledge cause I didn’t know how things work.”

‘Excellent way for learning, easier. Makes the learner take time and complete discussion which excels the learning experience. Promotes thinking and greater ideas. Well made program for the 21st century.’

4.4.3.4 Tutorials/Quizzes

The one WebCT tool that stood out in Questionnaire three as exceptionally popular amongst students was the tutorials (also called quizzes). Figure 11 illustrates their responses to the question: how did the quiz assist you when learning economics?

Perceptions about the quizzes

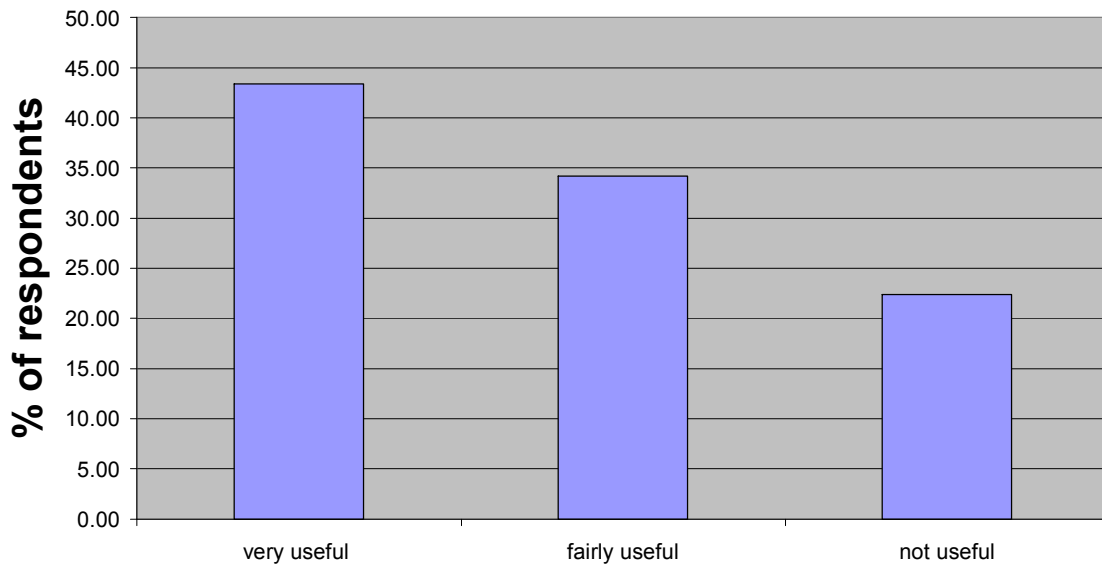


Figure 11: Students' perceptions about the usefulness of the quizzes

Almost half of the respondents, 43,4%, indicated that the quizzes were very useful and another 34,2% stated that they were fairly useful. Students who commented specifically on the quizzes in this questionnaire stated that by doing the quizzes, they were forced to study on a continuous basis, that it helped them to assess themselves and that it was a comprehensive way of learning all the work. The following are a few of the comments made which indicate the level of satisfaction.

“Good revision and a saviour for lazy students.”

“Encouraged me to study.”

“Forces you to open the book even if you don't want to.”

“Requires that you really go through your work and think which is excellent.”

“Some of the questions were difficult but if you could answer them you were prepared for anything.”

“Encourages you to read your textbook because you can't answer without it.”

4.4.4 Category 4: Deeper learning

One of the roles of a lecturer is to help students to become more competent. Competencies include thinking, originality, problem-solving, etc. (Adapted from Race, 2001, pp. 17-20) Students need to move from the danger zone, where they do not yet possess the necessary knowledge and are not aware of this, to the target area of competency and an awareness of their need for knowledge. Figure 12 illustrates the different levels of understanding and learning.

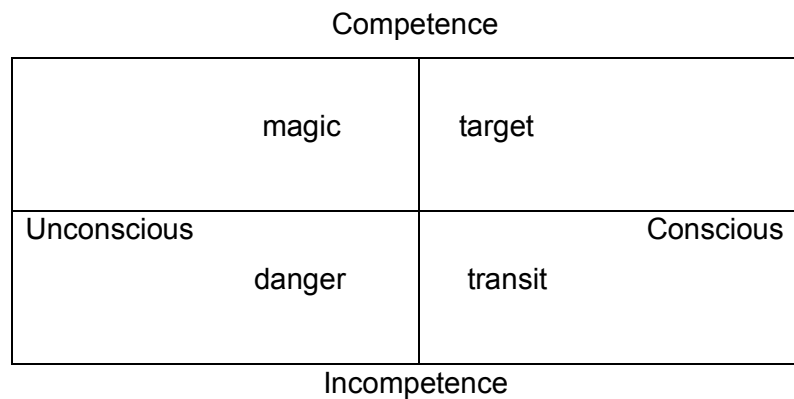


Figure 12: Levels of learning.

(Race, 2001)

According to the diagram, this could follow different routes, where one route is not necessarily better than the other. However, one of the responsibilities of the teacher is, on the one hand, to tell students what they need to know, but, on the other hand, to alert them to what they already know and to reinforce that knowledge. Deeper learning thus takes place on the conscious and the unconscious level. In this process, students need to apply what they have learnt for it to make sense within a world context.

4.4.4.1 Application

The level of application which took place within the LMS was commented on by the tutors in their second focus group meeting. They found it remarkable that first-years could argue on a level which was much more advanced than when they were first-years.

“I think the first time I opened WebCT and looked at the discussion topics, my mond het oopgehang. The way that they wrote, hoe hulle geredeneer het, was shocking, ek het nie in my eerste jaar so geredeneer nie. Ek het klas toe gegaan en notes geneem. Ek kan nie ‘n ding onthou van my eerste jaar nie! Wat hulle nou besig is om te doen, die manier waarop hulle dink, is wat ek nou in my derde jaar eers regkry. Dis nie meer memory werk nie, dis redenasie, en ek dink WebCT het dit begin op ‘n vroeë stadium ontwikkel. Hulle dink nie meer tonnel visie nie, met die discussion topics en dis allerdaagse goed en dis wat hulle eendag sal onthou. Jy gaan nie onthou wat is die vyf goeters nie, rerig nie. Maar jy gaan onthou wat inflasie, interest rates, interaksie is.”

(Translation: “..., how they argued, was shocking, I did not argue like that in my first year! I went to class and took notes. I cannot remember a thing from my first year! What they are busy doing now, the way in which they think, is what I only achieved now, in my third year. It’s not memory work anymore, it’s arguing and I think WebCT started this at an early stage. They don’t think with tunnel vision, with the discussion topics and the everyday stuff and this is what they will remember one day. You won’t remember what the five things are, not really. But you will remember what inflation, interest rates, interaction is.”)

This perception of linking the world to the textbook and being able to relate to both the textbook and real-world issues are echoed in both Questionnaire 2 and the focus group meeting held with the first-years.

“I can say this also. One subject that I feel I have learned something that I can apply in everyday life. The other subjects I feel I am just learning a lot of stuff, when am I ever going to use if (laughter in the background) this you can use

in everyday life, in your money management, you can have an intelligent conversation.”

The background noises also indicate that the group agreed with the speaker. It seems that students want to learn material that they can use elsewhere and that mere rote learning of work, just because it is in the textbook, is not what they are looking for at university level. Students need to make sense of what they learn and this happened in the discussion forum of the LMS.

The last discussion topic for the semester was for the students to reflect on the course, how they experienced the intervention and what their general attitude was towards Economics. The responses were overwhelming. The responses referred to the application, the way that they were able to make more sense of the economy around the idea that it is not a dry, boring subject any more and that they felt confident that they understood the fundamental issues in economics.

Subject: At the end of the semester...

“At this stage of level I'm so glad about everything in economics, at this moment I didn't understand the Fiscal Policy but now I really enjoy it and get knowing it harder. Most important thing I'll like to thank about this training section of webct for assisting us about the real thing of what happening in economy and the rest of the world.”

4.4.4.2 Interest

According to Race (2001, p. 9) one of the five factors underpinning successful learning, is “wanting to learn”. This word implies more than motivation; “...it goes right to the heart of human urges, emotions and feelings” Words that he uses to summarise this factor are motivation, interest and enthusiasm. Students and tutors alike maintained that using the LMS functions added to the desire of students to learn.

In the focus group meeting with the tutors, the effect of reading additional information and digesting it, was perceived in a very positive light.

“Occasionally you get some jewels, it shows you that they actually think.”

“I posted ‘Where are you?’ and they started encouraging one another. ‘I read in the Business Times last year....’ Quite impressive! We did not do it! The first time we read newspapers was in Ekn 314, and we were forced to.”

“I have only learnt now that there is not only one answer to a question! There are several correct ones, as long as you understand it; I wish I knew that in my first year.”

“This system makes the students think, and this allows them to start argue them. It increases enthusiasm.”

The first-years agreed with this in their focus group meeting. They also reflected on the fact that they would hear something and then were able to link it to the subject matter and that it stimulated their thinking.

“You got interested, really, because you’d hear on the news that inflation has increased or decreased but if you don’t know anything, you had to fall back to the textbook to be able to refer and then you apply that practically.”

“The discussion on the topics we’ve done in class with the extra information was very good. This caused me to go do some more research and finding this information was very interesting and gave me so much knowledge about SA.”

4.4.5 Category 5: Additional Information

Communicating general announcements to students when there is a large group can be difficult. Often students miss a class where an important message is announced. One specific problem is, for instance, that there is not a single venue for writing tests which is large enough at the UFS, so that students have to be accommodated at different venues. Students therefore need to be informed in which specific venue they would be writing their test. Information of this nature was regularly posted on the notice board section of WebCT and students commented on this functionality as informative and a constant reminder. This was especially seen in Questionnaire 3,

where, in addition to general comments, 72,8% reported that they found it fairly to very useful.

“Over and above I think that WebCT is okay...good for communication and learning.”

“Receiving important messages about course, tutorials, etc.”

“These notices kept me up to date and they really attracted a person’s attention.”

“New exactly what was happening when. Could not miss dates of tutorials. Information was easily obtainable.”

“Very very helpful. Whatever you need to know was right in front of your face.”

“It was a backup system and there was somebody to remind you the whole time – this is the date that you are writing the test, it was like a constant reminder”.

4.4.6 Category 6: Generic Skills

According to Michael Gibbons, graduates in the 21st century will require, amongst other skills, the following: computer literacy, knowledge reconfiguration skills, information management, problem-solving in the context of application, team building, networking, negotiation/mediation competencies and social sensitivity (Gibbons: 1998). One of the priorities as indicated by the objectives of South Africa’s National Plan for Higher Education is “...to produce graduates with the skills and competencies required to participate in the modern world in the 21st century (Ministry of Education, 2001, p. 18).

Several of the students identified computer literacy as a very important skill that they have learnt. These students commented that they had never used a computer before and that they probably never would have bothered to learn computer skills, had they not been forced to in this course. Students learned within the psychomotor domain.

4.4.6.1 Computer literacy/computer user

When asked to identify the most exciting aspect of using a Learning Management System in Questionnaire one, using the computer ranked very high, with comments stating that using computers was totally new to them.

“Values added to my WebCT are my computer literacy has tremendously increased and I began to like and enjoy working with the computer.”

“Doing EKN has helped me have eager to go to my computer. At first I didn’t have any computer interest but fortunately I had to go.”

“I think WebCT is a very good tool for learning because as a student who haven’t been exposed to the world of technology it is a great way of being computer literate.”

This sentiment is also shared by respondents in Questionnaire three, where 36,1% of respondents ranked computer literacy as very useful, whilst another 29,7% stated that it was fairly useful. Only 8,9% indicated that it had no or very little use in their learning process. Comments made on this questionnaire relating to computer literacy include the following:

“I didn’t know how to move a mouse, now I can type assignments!”

“I don’t have any problem when using the computer and this is thanks to WebCT.”

During the focus group meeting, first-year students explained how they felt when they realised that part of the evaluation for this course would be via the use of computers. The following comment was made by one of the participants, but the others in the group made contributions which could be heard in the background, agreeing with the speaker.

“I think it was difficult for all of us. I don’t know about you guys, but I never had any computers at school. Computers weren’t something I had worked on when I was in high school. (Laughing in background, affirmative noises) And suddenly I had been thrown in this environment of computers where I had to

form my studies around this computer - basically it improved my computer skills amazingly. I can do thing that I never were able to do before but it was difficult, I was forced to do it. It was a shock in the beginning but we got used to it!"

The sense of excitement about achieving something is picked up in the tone and volume of the student's voice, as well as from the laughter that accompanied this comment. Another student's comment adds to this:

"In a way we were killing two birds with one stone – it was learning Economics on the one hand and basic computer skills on the other hand. If we get out and join the working force we need those basic computer skills so I think it was very helpful."

Once again, noises of agreement are heard in the background. A third student commented on how being obliged to participate in the discussions, forced her to become computer literate.

"If I did not have to do the discussions on WebCT I probably would not have used a computer at all, unless I had to do assignments, I wouldn't go on the internet, I wouldn't learn new things like that unless I am forced to do that."

4.4.6.2 Learning/life skills

Other skills learnt from using the LMS were those of using the internet to get additional information, integrate that information with research skills.

"I think WebCT is a great thing especially on a 1st year level, because if you get a question that need a lot of thinking, instead of paging the whole book looking for an answer, a person can just look for that answer of the internet. By doing that it's a way of starting to learn about a research over the internet."

"The most valuable was learning skills and knowledge, how to approach economic questions and it is simpler to approach them (than) to approach a lecture in class."

Furthermore, students knew that if their tutorials (quizzes) were late, even only by one minute, the computer would not accept them and an incomplete result would be given, thus denying them access to the examination. Consequently, they had to learn to do proper time-management and planning.

“What I’ve learnt from WebCT is punctuality (first of all), especially with tutorials, I know that if I’m late with the tutorial then I’m in big trouble...” (INCOMPLETE).

“Even if one is computer illiterate, WebCT forces one to gain skills for a future career. Whether we like it or not, we’ll become computer literate. It also prepares us to meet deadlines.”

4.5 Negative aspects of using the LMS.

Not all the students were positive towards using the LMS. Their negativity stems from four basic clusters as identified during the data analysis and which is summarised in Table 18.

Category	Key Concepts	Additional Descriptive words
Negative aspects and experiences	Time consuming	Takes too much time
	Technology	Off line, cannot find, log in, password
	Extra effort	Go to the lab
	Late notes/responses	After class

Table 18: Negative experiences

The bulk of the negative comments were found in the first questionnaire, which was completed after three weeks of using the LMS. Many technical problems and glitches had not yet been sorted out, and students were not yet used to the new system of learning. As the semester progressed, much less was reported in terms of technical problems and fewer negative comments in general, were made.

4.5.1 Time-consuming

Many of the comments relating to additional time spent refer to the discussion board and that students had to spend time there.

“Discussion board, takes time.”

“Discussion, I do not always have time.”

“Takes much of my leisure time.”

However, when asked the question during the focus group meeting: how much time did it take? (relating to the discussions) the following answers were received:

“15 minutes! (Laughter)”

“...But the discussions, that is about 30 minutes, then you really put in your time and effort. But if you just sat down, it could take 10 minutes, then you just make your discussions.”

4.5.2 Technology

The second source of frustration referred to technological issues, such as networks not being available, passwords not allowing access and diagrams which did not appear whilst doing the tutorials. The main problem with the diagrams was that students needed to log on to the internet for those, whilst WebCT was loaded on the university's intranet. What added to the problem was that the University did not have a single password and that students needed different passwords to log on to different functionalities. This caused endless confusion and frustration, but also seemed to lessen as students became more au fait with the system. The following quotations were taken from Questionnaire one: the most frustrating aspects of WebCT.

“When trying to do tutorials and you struggle, trying to open notes and they don't.”

“Diagram not available.”

“Spending hours on the computer, losing info if server is down. Not being able to find something.”

“Pathetic backbone infrastructure that WebCT has for the UOVS.”

“Internet down.”

“Writing discussions because sometimes I have to rewrite due to the fact that it disappears.”

“When the system is down at crucial times (when assignments are due).”

“When you fail to log in because you forget the password.”

“When the password is denied, and then you have to register again.”

4.5.3 Extra effort

Some of the comments related to the fact that it took extra effort from the students to make their electronic contributions. This had already been predicted by one of the tutors in the first focus group meeting, when he was asked to explain to the meeting’s facilitator exactly what it was that they, as tutors, were doing.

“We are doing magic! I think they are not spoon-fed anymore, you actually have to DO something. If I were a first year, I wouldn’t like it, but you know in the long run they are going to benefit. They want to go to class, go home, write the test and pass it. They don’t see the benefits of using WebCT, what they can get from WebCT.”

Students’ comments from Questionnaire 1: most frustrating, also referred to the fact that they had to make an effort to go to the computer lab and that it was costly, both in terms of time and money.

“We have to go to the lab twice a week.”

“Must be in a computer lab daily even if we are busy of something, eg studying for a test.”

“Everything, WebCT itself is irritating.”

“Discussion because they need much of your understanding.”

“Takes a lot of time to do tutorials and sometimes I have to drive all the way to campus to do it. It wastes petrol thus money.”

The following comment was taken from Questionnaire three and represents a very disgruntled student. (Interesting to note, however, is that this student indicated that he/she failed the Ekn 1 first semester course.)

"I hate WebCT and hate the person who came up with the whole idea of WebCT. It is time consuming and requires time and effort. I feel as a student I don't have time and between my books and my life WebCT just takes 1/3 of both the joys of my life."

4.5.4 Late notes/responses

Not being able to access the information that they had logged on for, caused extreme frustration for the students. This refers especially to the notes or answers to specific questions/feedback. Students would visit the computer labs with the specific intention of downloading the notes or seeking answers and then those would not yet have been posted. These comments on frustrations come from Questionnaire one.

"Not finding what you really logged in for. Sometimes notes are late."

"Its sometimes very hard to get notes!! It takes quite some time to get ur tutorial marks."

"Not getting your results immediately from the quizzes."

This source of frustration is only evident in the responses of groups whose tutors were not committed and dedicated to their responsibilities. The students from the focus group stated that they were very happy with the way in which things were run. When asked about their tutor and the return-time on queries, they had only positive comments to make.

"Next day, even same day sometimes, you see I am off campus and that makes it difficult so I'd come once, go on the computer, and check next day, I don't know if it was faster, but for me it was next day."

"Our tutor was wonderful. She posted things on time, organized extra classes. She really cared about what she did. I have heard from other students that their tutor was not good, and they did not get discussion, and they did not get any replies. And if it's a one way discussion, then its not worth anything. The tutor must be dedicated to what they do, must really want to do it. Then we can really learn a lot from the system."

Negative feedback refers to tutors who were not involved enough and who did not seem to really care about the students.

4.6 Summary

In this chapter, the experiences of the students making use of a Learning Management System in their economics first-year second semester course were discussed in three separate sections where each section addressed a different research question:

Interaction with lecturer/tutor

Interaction with peers

Interaction with the study material.

Quotations, comments and opinions from tutors and students were used to illustrate students' attitudes to, and experiences of, the LMS. Overall, students experienced the interaction on all three different levels as adding value to their learning experiences. However, both positive and negative experiences were noted. In general, the negative experiences refer to the time it takes, unreliable technology, the extra effort that students have to make and the problem of late responses; thus, issues are not necessarily related to the pedagogical value of the LMS, but rather to issues outside of the learning and teaching arena.

Chapter 5 presents the findings and conclusions of this study.