ENGAGEMENT WITH AND PARTICIPATION IN ONLINE DISCUSSION FORUMS

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ABSTRACT
This article reports on a small-scale study that examined student engagement with and participation in a university online discussion forum site. The main aim of the study was to identify factors that encourage or discourage student participation in the forum. The study involved the tasks posted on the forum site with which students could engage and provide answers. The content of the discussion forums provided data for this study. The study used a post-graduate module with relatively high student numbers offered by an open and distance learning (ODL) institution of higher education in South Africa. A grounded theory approach was used for data analysis. The results show that participation does not mean that the discussion forums are being used effectively, and it certainly does not indicate that student learning is being enhanced. Discussion forum effectiveness and student interaction are increased by greater social presence on the part of lecturers, especially in the form of technical support, providing constructive feedback, and by setting clear expectations to help students understand what is expected of them.
Keywords: online discussion; student participation; virtual learning environment; discussion forums; student engagement; e-learning.

INTRODUCTION
The introduction of technology and the internet has provided new methods for learning and teaching, with many institutions of higher learning adopting e-learning techniques (Sharples, 2000; Farmer, 2004; Moore & Marra, 2005; Su, Bonk, Magjuka, Liu & Lee, 2005). A popular e-learning technique adopted by open distance learning (ODL) institutions is the online asynchronous discussion forum which is a technology-based technique through which the transfer of tacit knowledge is facilitated by ensuring interaction between students and lecturers (Sharples, 2000; Farmer, 2004; Valiathan, 2002). Advances in technology and students' advanced computer skills have made it possible for asynchronous online discussion forums to develop rapidly. Interaction between lecturers and students is now increasingly taking place online (Shana, 2009). Online discussion forums increase the opportunities for student participation and enhance the participation of students who may feel inhibited when required to engage in discussions in a traditional classroom setting (Kanuka, 2005). Kanuka (2005) maintains that discussion forums can improve students' critical thinking. This claim is supported by Perkins and Murphy (2006) who developed a model for measuring engagement in critical thinking in online discussions.

Discussion forums are clearly powerful tools but only if students engage with them. The current study involved the posting of a task in a university virtual learning environment, which is known as myUnisa. The University of South Africa (Unisa), an Open Distance Learning (ODL) institution in which this study was conducted, has an online student support program called myUnisa. Students can log in to myUnisa and discuss topics and issues that have been uploaded onto a discussion forum site by lecturers. The discussion forum site offers students an opportunity to engage in debate with the lecturers and fellow students anytime, anyplace, and anywhere. By providing the forum facilities, which are complete with topics for discussion, lecturers assumed that students would regularly engage in debate. However, it emerged that these online discussion forums were not being used effectively, by the students and the lecturers.

The rationale for the study was the identification of possible factors that discourage students from participating in the discussion forums. To address the rationale for the study effectively, this article draws on the literature concerned with the emerging elements of the best practices in discussion forum use, myUnisa as student support technology program and lastly, Salmon's five-stage model of online interaction (2004). Salmon's five-stage model is a useful reflective framework to consider for reviewing engagement of forum tasks for continuous improvement.

LITERATURE REVIEW
Elements of best practice
Clearly, there is significant value in the use of online discussion forums. However, collaboration and constructivist approaches to teaching do not just happen by making the technology available (Garrison, 2007).

Although online discussion forums have been widely used for about a decade, there is much emerging literature that is rich in effective strategies and tactics for their use. A framework of key concepts or critical elements is useful as a means of organising such strategies and tactics. The following section reviews some elements of best practices identified by Rose and Smith (2007) and Roper (2007) within this organising framework, such as giving clear directions, providing instructors' feedback, promoting motivation, setting expectations, organising discussions and determining the types of questions.

Giving clear directions
A lecturer must be sure to provide students with directions for online discussions that are simple, to the point and do not cause any confusion among the students (Rose & Smith, 2007). It should be made clear whether the discussion will be synchronous or asynchronous. If it is a synchronous discussion, the students will need to know where and when to meet; and if it is asynchronous, the students need to know if they must meet a deadline for responding to the questions posted.

Providing instructors' feedback
Not only are clear directions necessary, but feedback from lecturers is also needed. It is not enough for a lecturer to present an assignment. The students need to know whether they are addressing the issue in sufficient depth, whether their understanding of the issue is correct, and whether they need clarification on a certain aspect. Lecturers need to be able to shed light on the subject. The lecturer must be sensitive to the impact of their comments, as negative reinforcement is likely to result in disengagement with the use of the forum (Roper, 2007). A goal should be to ensure that the students continue to engage with the discussion groups.

Promoting motivation
Students should be motivated to contribute to the discussions (Rose & Smith, 2007). There are different ways in which this can be accomplished. To enhance participation, at the very beginning of a course a lecturer can find out what interests the students, and if possible, tie in their interests with the discussion and issue being presented on the forum. The lecturer also needs to address how students will be assessed on their participation in discussions. If a lecturer does not include this as part of the final grade, it may be very difficult to motivate students to participate in the discussion. Some students may not join in at all and other students may participate but give shallow and short responses instead of providing in-depth reflective responses that bring together their experiences with the material. It is not enough to inform students that they will be graded on their participation in the discussions: students must also know how they will be graded. There should be specific guidelines and rubrics that explain all of the assessment techniques that the lecturer will use (Rose & Smith, 2007).

Setting expectations
In addition to these factors, setting the correct expectations is essential. Lecturers should declare early in the course their expectations of students on how to participate and acquire the best out of the discussion forum. This declaration may consist of directions regarding how often students should post comments in the discussion forum site and how many they ought to post, what the pattern of their contribution should be, how the students should approach the subject and in general what is expected of them (Roper, 2007, p. 64). The expectations might be different taking into account the differences in the content of the courses. Hence, through subject-specific guidelines, students can follow the lecturers' guidance and try to achieve the goal of learning accordingly.

Organising discussions
The way that the discussions are organised plays an important role in the development process. One suggestion is to keep threaded discussions similar to an outline, "with each topic … given its own thread, separate from other conversations" (Rose & Smith, 2007, p.147). This helps students find the information that they are searching for, and when students need to return to the thread, they will know where to search for what they seek. This approach makes it much easier for students to retrieve the required information. It may also be wise to have students create different subjects for their posts for the same reason. This will help students create summaries of their discussions and will enhance their memory.

Social presence
Social presence is the extent to which students and teachers project themselves through the online forums as real people (Garrison, 2007). Social interactions enrich the learning community and underpin the development of a community of practice (Irwin & Berge, 2006). Social presence supports cognitive presence (Rourke, Anderson, Garrison & Archer, 2001) where shared goals form a community that can construct meaning through sustained communication. Tactics to enhance the development of social presence include the use of online introductions (Pelz, 2004) and the provision of social spaces (Heckman & Annabi, 2006). The tone of the discussions and

students' belief that the forums provide a safe environment is also critical (Anderson & Elloumi, 2004). The tutor can model appropriate behaviour, provide effective use of online discussion forums as well as on etiquette guidelines; they can also moderate discussions and deal appropriately with unacceptable behaviour (Berge, 1995).

Determining the types of questions
Finally, the type of question that is posted in an online discussion will, to a great extent, help determine whether there will be student participation. Neal and Akin (2007) propose several types of questions. These include questions that ask for more evidence, questions that ask for clarification, open questions, linking or extension questions, hypothetical questions, cause-and-effect questions, and summary and synthesis questions.
The following section gives an overview of an online discussion forum provided on myUnisa followed by Salmon's five-stage model of online interaction.

myUnisa as a student support technology program
myUnisa is a web-based system for academic collaboration and study-related interaction. The system has been developed to supplement and enhance academic interaction and improve communication between the university and its students as well as to provide opportunities for engagement among students. One must be a *registered student* for the current academic year to gain access to myUnisa. myUnisa provides a discussion forum site for every module offered at Unisa. Discussion forums allow for 'structured' conversations between participants on a site. This means that the communications must be in a certain form, so that all participants can enjoy the maximum benefit. There are two kinds of discussions, namely a 'flat' discussion and a 'threaded' discussion. A flat discussion is one where the site participants (lecturers and students) can post replies to the main topic only. A threaded discussion allows the site participants to reply to the topic and to postings from other participants. A discussion forum is a tool that reduces the 'distance' in distance education. The lecturer can 'talk' to and with the students, and students can 'talk' to one another. Such interaction on the forum encourages the formation of learning communities.

Figure 1 below is marked with numbers to give a working knowledge of and the basic terminology relating to the discussion forum provided on myUnisa. It is essential for participants to know where to find the various resources they need on the forum. However, students will still need some form of individual technical help as general encouragement to overcome their fear of the technology.
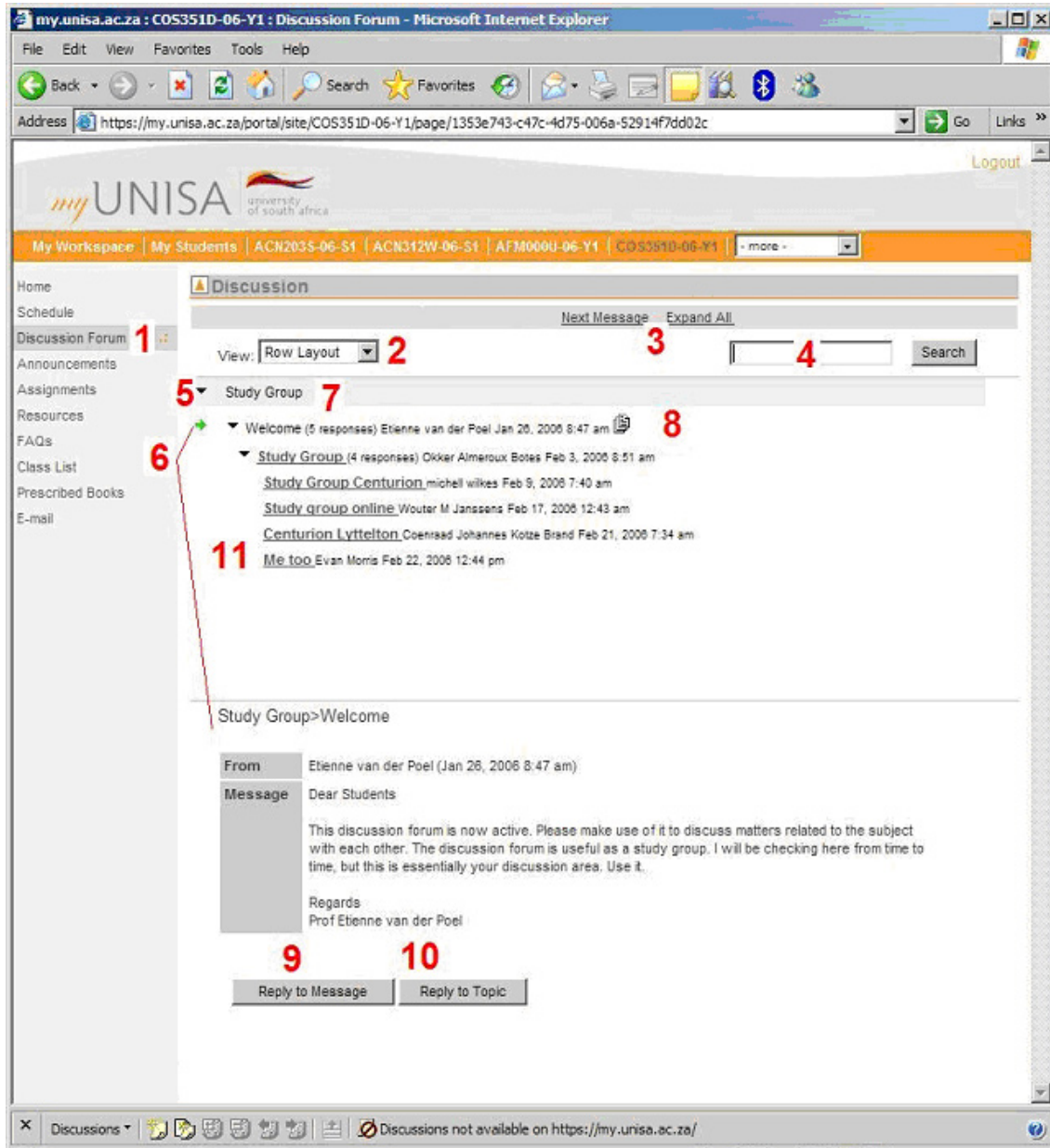
Figure 1: Discussion forum on myUnisa
(Source**:** http://www.unisa.ac.za/)

The icons
Students are given the following instructions in the use of the program, specifically with regard to the icons:

1. Select the discussion forum page by clicking on this link. Note that every subject has its own forum.
2. Changing the layout
   The discussion tool uses two frames to display discussion topics and replies. You can change the layout to a vertical (two-column) or horizontal (two-row) layout by using the 'view drop down list'. In the Column Layout, the left frame shows the hierarchy of categories, topics and replies. Clicking on a topic or reply shows the content of the message in the right frame. In the Row Layout, the top frame shows the hierarchy of categories, topics and replies; the content appears in the bottom frame.
3. There are tools to expand all message categories and topics or to page through the messages one by one.
4. There is a search engine to search for a specific message.
5. Black triangle – in front of the line with the topic title. Expand or collapse a topic or category to enable you to see all the postings. If the black triangle points to the right it indicates the collapsed view of that

specific category or topic and if it points down it indicates expanded view. This works in the same way as the + and – signs in a Windows folder.

6. **Green arrow** – in front of the Topic title. It points to the current message selected. This message is displayed below the list of categories or on the right (depending on row or column selection).
7. Category heading — top level of the hierarchy
8. **Stack of papers** — at the end of the same line as the topic title. List all the messages in a topic for easy printing.
9. This is the button to click if you want to start the reply to a message.
10. This is the button to click if you want to reply to a topic.

Salmon's five-stage model of online interaction
Salmon's (2004) five-stage model as presented in Figure 2 below is useful as a reflective framework tool which can assist students in identifying factors that discourage them from engaging effectively with the forum task.
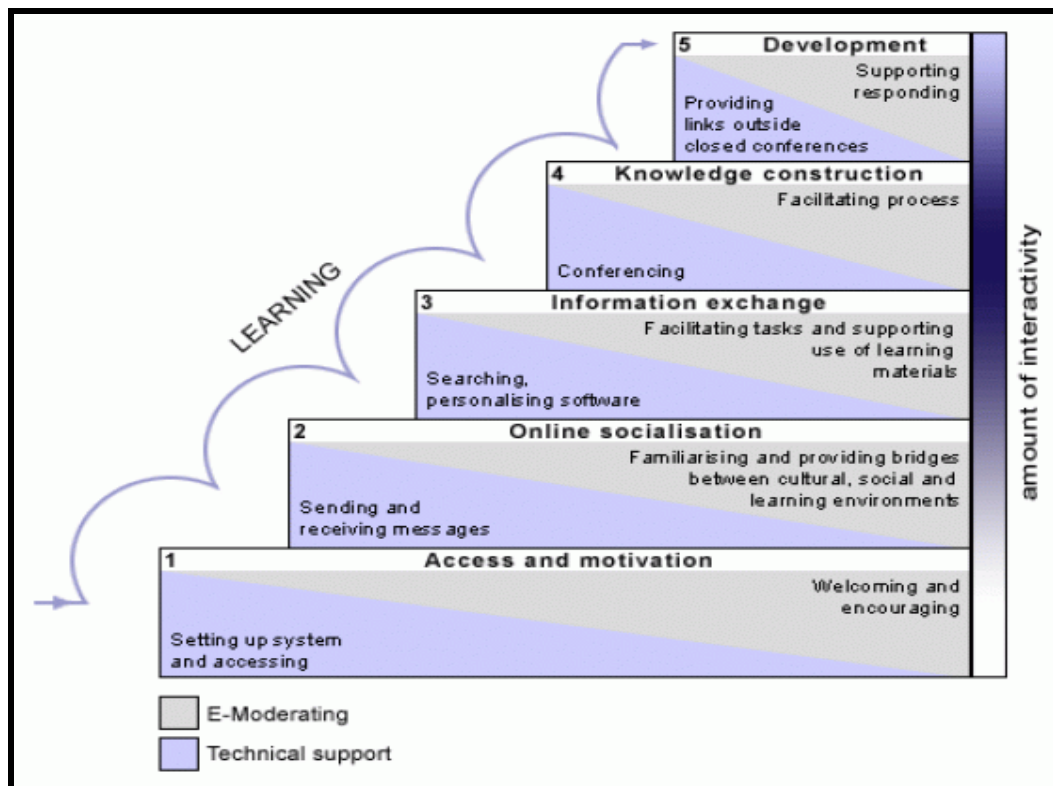

Figure 2: Salmon's five-stage model
(Source: http://www.atimod.com/e-moderating/5stage.shtml/)

Figure 2 shows that *Stage 1* is important in motivating students to participate in the forum. Students need information and technical support to get started online and strong motivation and encouragement to put in the necessary time and effort. Mastering the system can be fairly daunting to start with and requires ongoing support from lecturers. *Stage 2* emphasises the importance of the social presence of participants in the forum. Social presence as discussed in the previous sections refers to the extent to which students and the lecturer project themselves through online forums as real people (Garrison, 2007). Tactics to enhance the development of social presence include the use of online introduction (Pelz, 2004) and the provision of social spaces (Heckman & Annabi, 2006). Also, critical is the tone of the discussion and students' beliefs that the forums provide a safe environment (Anderson & Elloumi, 2004). A module lecturer needs to set the scene by promoting mutual respect, defusing any potential conflicts between individuals and helping participants with similar interests and needs find each other. When participants start to share a little of themselves online, they will be ready to move to the next stage. *Stage 3* introduces interaction between students and the learning content and other participants. At this stage, many participants are likely to need help from the lecturer in developing or refining their seeking, searching and selecting skills. A lecturer needs to provide guidance without inhibiting the free-flowing communication between students, as students derive an enormous amount of motivation and enjoyment from this personal communication. *Stage 4* expects participants to construct knowledge by drawing on real, personal

situations and experiences through critical and practical thinking. A lecturer has an important role to play by enabling development of ideas through discussion and collaboration, summarising from time to time, ensuring that diverse views are given consideration and helping keep the discussion on track. This leads to *stage 5* where continuing independent learning takes place, building on the constructed ideas and reflecting on what has been learnt. Many students at this stage feel confident to confront lecturers and provide them with feedback to help improve the learning process.

METHODOLOGY
According to Yin (1994), a case study is appropriate to examine issues where investigators have little or no possibility of controlling events and the study is on contemporary phenomena in a real context. The case study approach was used in the collection of a data for this study. In using this method I sought to investigate a question where I had no possibility of controlling the events, the context being the real-life online interaction among the students themselves and the interaction between the students and the lecturer. Specific topics were uploaded by the lecturer and students were expected to work through the readings on that theme and post their comments. Comments could be in the form of questions, opinions or analysis.

Data sources
The research was conducted at Unisa, more specifically in the Department of Teacher Education, one of the biggest departments in the university. Unisa was selected because it offers distance learning programmes and has a large student body. Moreover, the university relies on print-based material and technology to communicate information to students. The study targeted the Post-Graduate Certificate (PGCE) module with relatively high student numbers in the Department of Teacher Education. These cohorts of students possess a first degree and it was believed that they were familiar with the university environment and would provide valuable information.

Data analysis method
As part of their performance contract agreement signed with their immediate line managers, lecturers are expected to post tasks on the forum and this is viewed as part of support provided to the students. The primary focus of the research on which this article is based was to identify factors that discourage or encourage student engagement with, and participation in, the online discussion forums. A forum task set up by the lecturer was observed and assessed over a period of three months (February – April). The forum task involved the first semester. As a way of encouraging the students to participate, the lecturer explained the reason for the forum task and the benefits it would offer them. Several threads were created on myUnisa to allow students to communicate online (see Figure 1 above).

I attempted to uncover all the themes by analysing the discussion forum posts through qualitative data analysis. Qualitative data was processed using a grounded theory approach (Strauss & Corbon, 1994), that is open, axial, and selective coding so that information relevant to the research could be extracted. In addition, a small-scale quantitative analysis was also performed to calculate the percentage of times each theme appeared in the discussion forum.

FINDINGS AND DISCUSSIONS
To carry out the analysis, participation was observed over a period of three months (February – April) for first semester registration. January was excluded considering that students were still trying to make sense of the study materials received. The months of May and June are reserved for semester examinations according to the Unisa year planner. Again, it must also be acknowledged that access to internet might have contributed negatively to the participation rate. Table 1 represents data collected from the discussion forum whereas Figures 3 and 4 reported the same data in a split format for better understanding and discussion purposes.

Table 1: Participation in the discussion forum

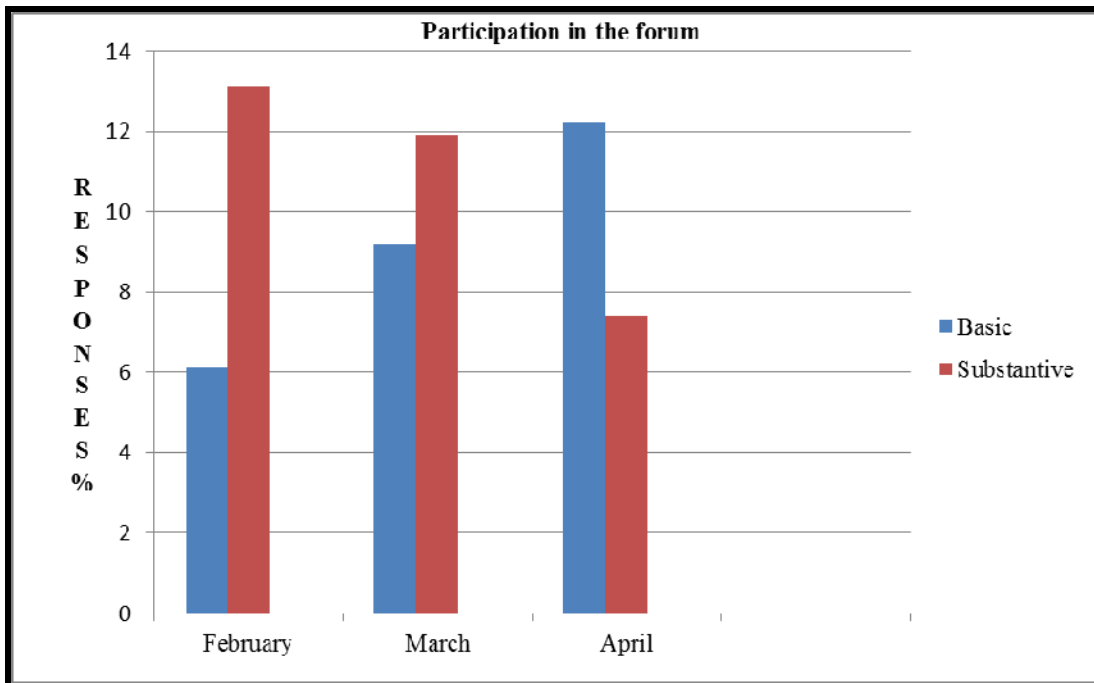| Number of students (N)	N = 2500				N = 2500		
Responses	**Basic (F*)**	**% of F***	**Substantive (F*)**	**% of F***	**Reasons for poor participation**	**F***	**% of F***
February	153	**6.1%**	328	**13.1%**	Technical problem	306	**12.2%**
March	231	**9.2%**	297	**11.9%**	Unclear expectations	206	**8.2%**
April	306	**12.2%**	184	**7.4%**	Providing feedback	408	**16.3%**

F* represents frequency
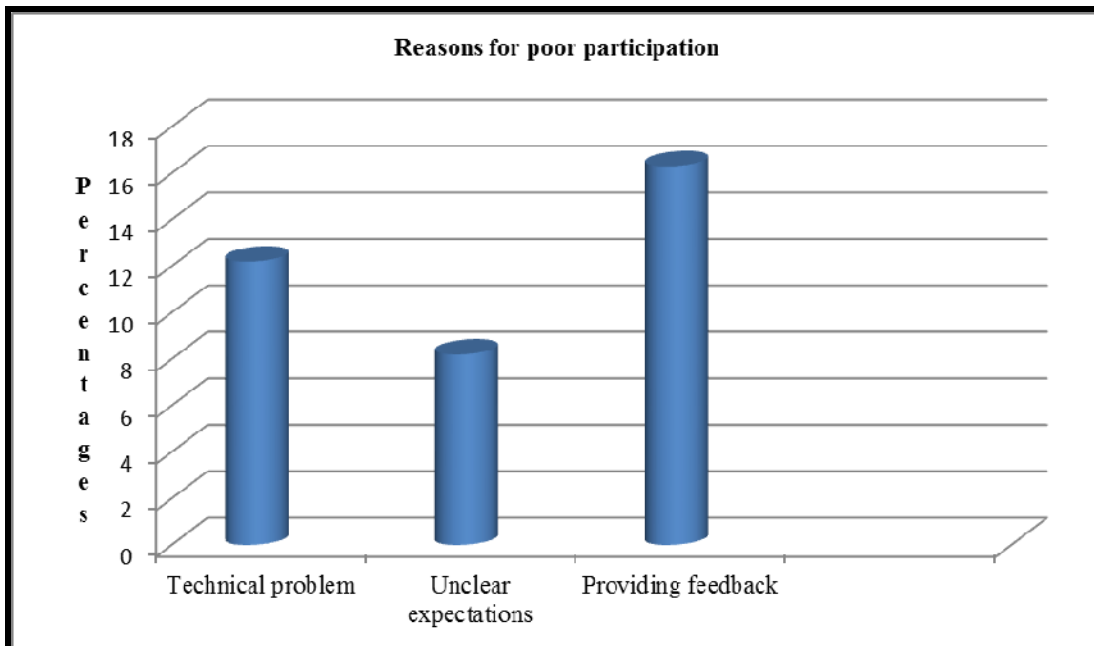
Figure 3: Participation in the forum

Figure 4: Reasons for poor participation

As a first step in data analysis, posts were categorised into themes. As can be seen in Table 1 and Figure 3, posts relating to the course content (responses to the activities uploaded in the forum by the lecturer) were divided into those that appeared to be **basic**, exhibiting little or no thoughts (for example: "I agree with the comment", "Yes you are correct") and those ones that were more **substantive**, indicating at least some level of thought, reflection, research and engagement in debate. Even though no attempt was made to ascertain their 'correctness', however, such posts are believed to be of great value in the student learning process. Lastly, posts that had an element of complaint and dissatisfaction were also identified and categorised as **reasons for poor participation**. As can be seen in Table 1 and Figure 4, themes that emerged from analysis included the following: *technical problem, unclear expectations* and *providing feedback*. These were common themes that featured strongly throughout the interactions. The percentages relate to proportion of times the themes emerged

during all the student interactions. These percentages were calculated from the number of students registered for the module in the first semester.

As can be seen in Figure 3, in February only 6.1% of the responses were identified as basic while 13.1% were substantive. In March, the responses categorised as basic posts rose to 9.2% and substantive responses declined to 11.9%. The same happened in April: basic responses rose further to 12.2% and substantive responses declined further to 7.4%. A possible reason for the increase in the level of posts categorised as basic and the decline of posts categorised as substantive may have been insufficient motivation and unclear expectations.

Reflecting on stage 1of Salmon's (2004) five-stage model, students should be motivated to contribute to the discussions. At the very beginning of a course, a lecturer needs to find out what interests the students and, if possible, needs to tie in their interests with the discussion and issue being presented on the forum. Occasionally an external event, perhaps in the news, would prompt participation in the forum. If any assessment is to be conducted, it is important to clarify to the students how their participation in the forum will be assessed. If a lecturer does not include this part, it may be very difficult to motivate students to partake in the discussion forum. However, it is not enough to inform students that they will be assessed on their participation in the forum: the students must know how they will be assessed and what value the assessment will add in their studies. There should be specific guidelines that inform students how the assessment will be conducted as they participate in the forum. Balaji and Chakrabarti (2010) found that setting clear expectations encouraged students to complete discussions. As can been seen in Figure 4, unclear expectations as one of the reasons for poor participation featured strongly in the findings, with almost 8.2% posts.

Reflecting on stage 1 again, students might need some form of individual technical help especially when 'the system' does not respond as expected. Access to technical support needs to be made available, for example through a telephone helpline, particularly when the student is struggling to get online on his or her own. Since myUnisa crashes quite often due to the increased number of students who use the tool to submit assignments, this kind of support, if made available to students, will help a great deal. The results shown in Figure 4 validate this fact. Almost 12.2% of posts complained about technical support and assistance to enable them to participate in the discussion.

Another factor that appeared quite often in the forum is insufficient feedback with 16.1% complaints posted in the forum (Figure 4). Reflecting on stage 4 of Salmon's five-stage model, it is important for the lecturer to provide feedback and a summary of the work undertaken. Offering feedback provides evidence to the students that the lecturer is interested in their comments. In this research it appeared that the module lecturer only posted once between opening and closing posts. This was insufficient to encourage participants, especially those lurking, to interact with the content. As Andresen (2009) stresses, increased posting by the lecturer causes learners to perceive the lecturer as being more enthusiastic and having more expertise. However, lecturers must be sensitive to the impact of their comments, as negative reinforcement is likely to result in disengagement with the use of the forum. A goal should be to ensure that the students continue to engage with the discussion groups. One strategy for doing this is to synthesise student opinions so that contrasting opinions are shown. It is important to encourage the students who engage with the process.

As the number of student comments increases, it becomes necessary to synthesise this information so that it can become a resource. One strategy for doing this is to remove all comments and place them in a new file with the lecturer's comments. By using this approach it is possible to show the students that different perspectives are valued. Although this may take a relatively longer time, it should be emphasised that the lecturer is creating a resource for the next time the module is delivered.

CONCLUSION
In conclusion, I suggest that the discussion forum offers an excellent way in which lecturers can engage effectively with students studying through distance education. However, lecturers should not assume that if they post a task on a forum students will automatically engage with it. Lecturers need to be proactive, recognise the students' work and provide feedback. While this might be perceived as additional work, it should be noted that synthesising students' comments and adding commentary could provide a valuable resource for students to use in the same module in future.

CONTRIBUTION TO KNOWLEDGE
Although this research has tended to validate the findings of other research studies, it has suggested some action for lecturers to take to increase engagement and make online discussion forums more effective. It has also made some contributions to the knowledge about the integration of Salmon's (2004) five-stage model in analysing participation in the discussion forum. Salmon's five-stage model has not been widely used in researching online

discussion forums. Its use in this study is therefore a methodological contribution to the online discussion literature. Another contribution to knowledge is that the integration of Salmon's five-stage model can also be used as a way of assessing students' online contributions, while students may use it as a way to understand what is expected of them as participants in online discussion forums.

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