

Student Engagement with, and Participation in, an e-Forum

Roger B. Mason

Department of Marketing, Retail, and Public Relations, Durban University of Technology, Durban, South Africa and
Department of Marketing, University of Wolverhampton, United Kingdom // rogerm@dut.ac.za

ABSTRACT

This paper examines engagement with an online discussion forum, aiming to identify the different levels of participation and to investigate factors that encourage or discourage student participation. The case involved the posing of a short real-life problem via a forum on the university's virtual learning environment. An in-class survey was conducted to identify students' participation and attitudes toward the forum. Students understood the benefits of the task, but did not participate due to time pressures and lack of motivation. The reasons for this were found to be inadequate explanation and encouragement to do the task, and insufficient moderator participation. Recommendations for improving forum participation are provided.

Keywords

E-learning, Discussion forum, Student engagement, VLE, Student participation

Introduction

The development of computer technology and the Internet has provided new methods for learning and teaching, with many educational institutions adopting e-learning techniques (Herrington, Reeves, Oliver, and Woo, 2004; Moore and Marra, 2005; Su, Bonk, Magjuka, Liu, and Lee, 2005). A popular e-learning technique is the online discussion forum, which is one of the technology-based techniques through which the transfer of tacit knowledge is facilitated by interacting with colleagues and experts (Valiathan, 2002). Forums are text-based communication methods that can increase the quality of the learning experience, enabling higher level learning to take place (Kanuka, 2005). Kanuka, 2005 maintains that discussion forums increase student participation and improve critical thinking. This claim is supported by Perkins and Murphy (2006) who developed a model for measuring engagement in critical thinking in online discussions.

Forums are clearly powerful learning tools, but only if students engage with them. However, student participation in forums is rarely as complete as one would hope, considering the formative benefits that could be gained (Kovacic, 2004; Yang, Li, Tan, and Teo, 2007). Thomas (2002, p. 356) found "limited activity in the first weeks", but increased activity in the final weeks. This, he believed, was due to the participants exploring and becoming familiar with the forum. Schier and Curtin (2009) also found a low initial engagement rate, namely two out of 140. Su et al. (2005) refer to different levels of interaction in learning. Of particular interest in this study is their 'learner-content' interaction, where students engage with the problem content, rather than with the tutor or other students. Su et al. (2005) indicate a lack of research into learner-content interaction, and, therefore, a need for more research into engagement within forums, especially in terms of engagement with *content* of the forum problem. This is supported by Guzdial and Turns (2000, p. 437) who identify "effective discussions as those that are sustained and are focused on topics related to class learning goals."

This paper examines the problem of engagement with a forum, and aims to identify the different levels of participation in a forum. The paper also investigates some possible factors that could encourage or discourage student participation.

The current study involved the posing of a short real-life problem via a forum on the university's virtual learning environment (VLE), which is known as Wolf, providing an authentic, problem-based learning approach. Problem-based learning leads to learning through development of new knowledge as well as building on existing skills, with students taking responsibility for their own learning (Miliszewska and Horwood, 2006). Miliszewska and Horwood (2006) adopted a constructivist approach that Herrington et al. (2004) claim should encourage student engagement. This paper presents the forum, explains how it was implemented, and describes what its outcome was. A critical reflection on the forum is then presented to identify anticipated and actual results relative to the extant literature. Based on this reflection and on the literature, an empirical, questionnaire-based survey was constructed in order to identify the participants' opinions about the forum, especially with regard to their reasons for engagement or non-engagement.

The rationale for this research was the identification of issues that academics should address to encourage greater participation in forums. Such participation, especially in a formative assignment, should encourage deeper learning in the participating students. Research has shown that engaged learners perform better and are more satisfied, but much of the research is outdated (Shana, 2009, p. 217). A decade ago, Guzdzial and Turns (2000) called for research on tools to integrate discussions effectively into a learning programme, and ten years later Yukselturk (2010) is still calling for more research in this field. .

The forum as a technology supported learning (TSL) solution

A forum task (see Figure 1) was set up primarily to introduce students to the use of the forum tool in the VLE, as well as getting them to consider a real life customer relationship situation. The task introduced the Customer Relationship module and was used in the first two weeks of this second level module with 56 students, all of whom have completed an introductory module in marketing, so have the underlying knowledge to reflect on the situation. They all had had 18 months of experience using the Wolf VLE system, and although they had not used the Wolf forum tool before, they were familiar with the concept of 'blogging' and should have been comfortable using the forum tool. In order to initiate participation, the lecturer explained and demonstrated the process of getting to, and posting onto, the forum during class. The lecturer also explained the reason for the forum task and the benefits it would provide them.

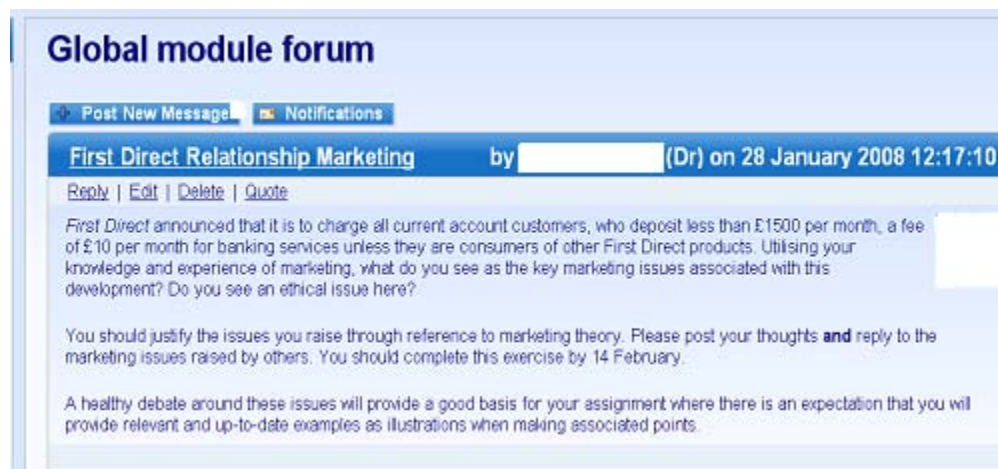
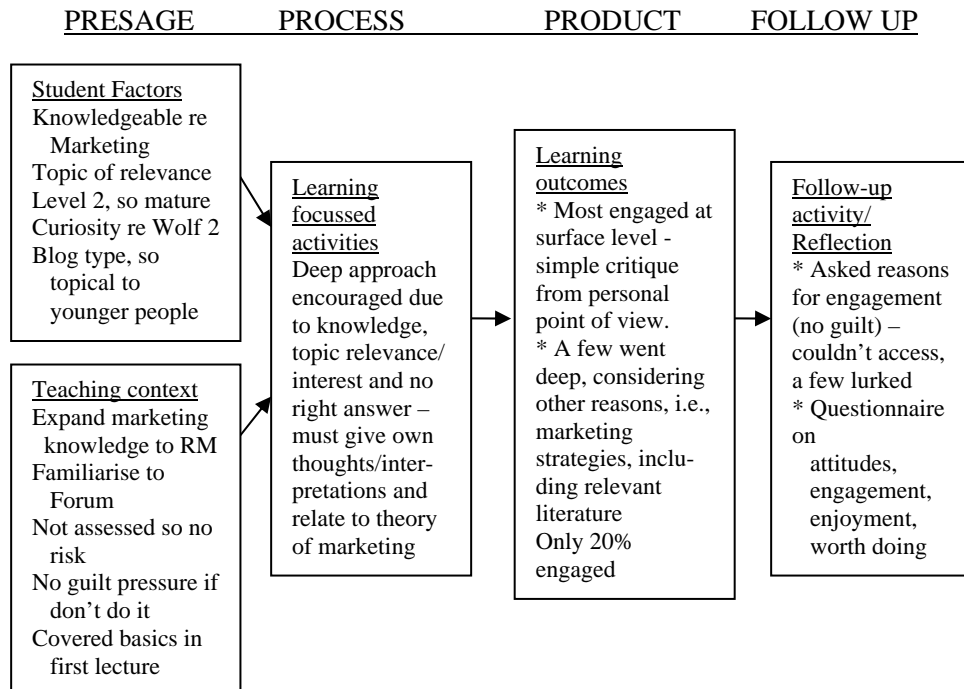


Figure 1: Forum task

According to Herrington et al. (2004, p. 22), an authentic task “enhance(d) the transfer of deep and lifelong learning” and encouraged “students...to spend much more time on the tasks.” The forum task was designed as an authentic task to encourage students to engage with the problem, and through participation, achieve deep learning, as the ‘presage’ factors (prior knowledge, motivation, teaching objective, friendly climate, etc.) of the Three P model (see Figure 2) are present (Biggs, 2003, p. 19). The Presage component of the model in Figure 3 shows that both the Student Factors and Teaching Content have been designed so as to maximise the deep learning, as were the Learning focussed activities discussed in the Process component of the model. This concept is supported by Thomas (2002) who found engagement was related to students’ knowledge – suggesting that knowledge is low at the beginning of a semester, and as a result engagement is also low. The presage and process factors adopted were consistent with Guzdzial and Turns’ (2000) ‘anchor’, a topic that would be of interest to participants, namely something that would help their learning.

The task also involved active teaching, requiring “students to question, to speculate, to generate solutions” (Biggs, 2003, p. 4) and to “carry out a task ... thinking about, discussing, and applying concepts” (Littlejohn and Higgison, 2003, p. 12). Schier and Curtin (2009) also stressed the importance of awarding assessment marks in encouraging engagement. Schier and Curtin (2009) claim that respondents also found activities that focussed on the learning material to be particularly helpful. Furthermore, the principles of the expectancy-value theory of motivation (Biggs, 2003, p. 58) were present – the value/worth of the task was explained - and the task was relevant, practical, topical, and an everyday problem. The lack of relevance that can lead to surface learning was not present (Fransson, in

Ramsden, 1992, p. 66). Thus the ‘process’ factors that should have contributed to high levels of engagement were present, although the “external pressures of increased study load” (Thomas, 2002, p. 357) could have negatively influenced this. The asynchronous nature of the forum should also have encouraged engagement (Bostock, 2007, p. 43).



Source: Biggs, 2003: 19

Figure 2: Three P model as applied to this e-forum

Individual postings were reflected in the forum as shown in the abbreviated and anonymised extract in Figure 3. From this, individual students’ participation could be identified.

by Student X on 06 February 2008 16:14:05

[RE: First Direct Relationship Marketing](#)
[Reply](#) | [Edit](#) | [Delete](#) | [Quote](#)

Doing this could limit their chances of gaining new customers, but more importantly could have a negative effect on their relationships with current customers. The current customers

by Student Y on 07 February 2008 09:39:54

[RE: First Direct Relationship Marketing](#)
[Reply](#) | [Edit](#) | [Delete](#) | [Quote](#)

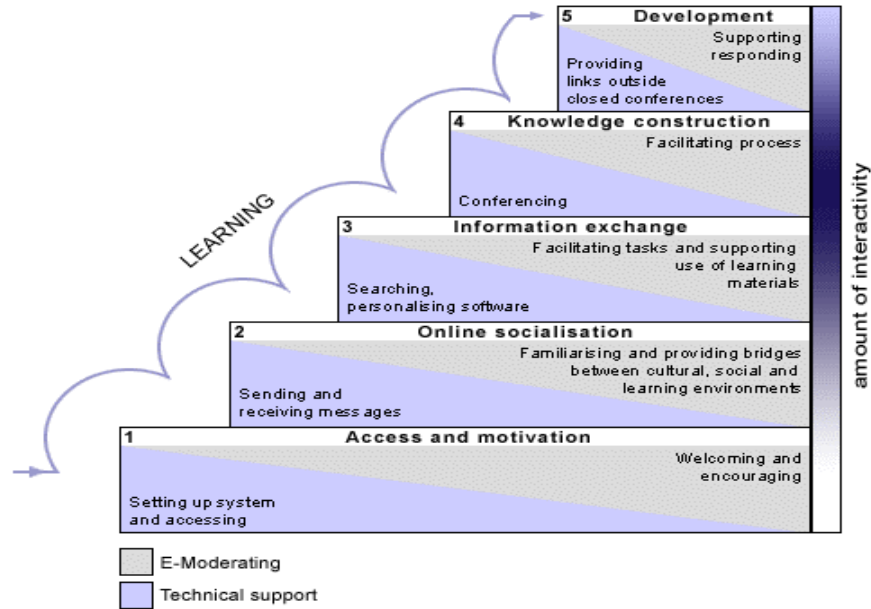
By adopting this strategy First Direct are not putting the needs of their customers first. As a result certain customers will not be satisfied and as

Figure 3: Example of forum postings

Despite all these activities to encourage engagement, only ten students out of the 56 in the class (17.9%) engaged with the discussion, with each of these ten students only posting once each. This result was better than that of Schier and Curtin (2009) who showed a response of 1.4% after two weeks, but worse than that of Yukselturk (2010) who showed an overall participation of 66%.

Reflective critique of TSL solution (forum)

Salmon's (2003) five stage model is useful as a reflective framework with which to consider and review the forum task. Figure 4 shows that Stage 1 is important in motivating students to participate, requiring quick and easy access to the technology. Stage 2 stresses the importance of strong scaffolding to encourage socialisation in the forum, and Stage 3 introduces interaction between students and learning content and other participants. Stage 4 expects participants to construct knowledge by drawing on real, personal situations and experiences through critical and practical thinking. This leads to Stage 5 where continuing independent learning happens, building on the constructed ideas and reflecting on what has been learned.



Source: Salmon, 2002a: 11.

Figure 4: Salmon's five stage model

The result, after two weeks of running the forum, was that only ten out of the 56 students in the class (17.9% of the class) posted to the forum and an unknown number 'lurked', thereby at least gaining some benefit from the task. This response was unexpected and disappointing, as a higher engagement was expected due to the reasons set out previously.

A possible reason for the lack of engagement with the task was that mainly stages 1 and 4 of Salmon's (2002a) model were addressed – effort was put into explaining the benefits the students would obtain and motivating them to participate. Reflecting on the problem and constructing an answer to post required the students to jump straight to Stage 4, constructing knowledge to resolve the problem. Stages 2 and 3, which help facilitate engagement, were missed (Salmon, 2003). No significant effort was made to create a scaffold via Stages 2 and 3 to gradually build on students' knowledge (Salmon, 2002b). Since this was a blended learning approach, including face-to-face lectures and tutorials, it could be argued that online socialisation of the participants was less important. However, the lecturer could have initiated the forum with a request for all students to complete their profile on the forum which would have helped with socialisation as well as helping with technology familiarisation and engagement with the forum. This is especially important since Guzdial and Turns (2000) found that unfamiliarity with a discussion may discourage engagement. Stage 3 requires considerable moderator participation to encourage interaction and avoid lurking (Salmon, 2002a and b). This is supported by Guzdial and Turns (2000) and Balaji and Chakrabarti (2010) who both maintain that forum effectiveness and student interactions are increased by greater instructor activity,

especially in the form of discussion management, sustained facilitation, and focusing on learning topics. Balaji and Chakrabarti (2010) also found that more instructor communication led to greater student participation. As moderator, the lecturer only posted once between opening and closing posts, which was insufficient to encourage participants, especially those lurking, to interact with the content. As Andresen (2009) stresses, increased postings by the moderator lead to learners perceiving the moderator as more enthusiastic and having more expertise. This can lead to increased student interest and motivation (Balaji and Chakrabarti, 2010). However, Guzdial and Turns (2000) highlight the increased time this requires and explain that this may be an impediment to effective forums.

Another possible reason for low engagement may be explained by Biggs' (2003) SOLO taxonomy, which Brown, Smyth, and Mainka (2006) maintain is an appropriate tool for analysing constructively aligned discussions. Most of the students' postings were at the Unistructural level, i.e., focussing on one issue, e.g., unfairness to consumer, and ignoring the complexity of the case, e.g., marketing theory, company viewpoint, etc. A few of the students may have gone to the Multistructural level by giving more detail about, or consideration to, the "poor consumer" approach. Only two participants went to the Relational level, considering the problem in the context of the company and in the context of the marketing theory that they had previously learned, and thus linking the case to academic marketing theory.

Most students clearly approached the problem from the consumer viewpoint, and not as marketers. In other words they used 'common sense' ideas about the case. This can be expected as most students only have experience of such problems as 'consumers', and therefore are unable to perceive the issue as faced by marketers. According to Reinhart, Slowinski and Anderson (2001) this is an acculturation problem (unfamiliar problem and tools), and acculturation takes time to happen. Continuation of the forum for longer may well have led to increased participation (Andresen, 2009). Furthermore, as second level students, they have not had sufficient time to learn to think like marketers – many think they can rely on innate knowledge without engaging with the new knowledge, theories, and literature necessary to change their cognitive viewpoints. This implies that the problem is with their 'prior knowledge', as per the three P model (see Figure 2). The challenge is, in addition to more time, to get students to change their cognitive approach and to think as marketers rather than as consumers, thereby applying newly learnt knowledge to the problem, rather than their 'prior knowledge'.

Another reason for the low participation may have been inadequate instructions. Balaji and Chakrabarti (2010) found that full instructions encouraged students to complete discussions. A more interesting and attention-catching question may have encouraged greater engagement. Yang et al. (2007) found that the expectation of a positive outcome increases participants' intention to participate in a forum. Furthermore, Groves and O'Donoghue (2009) emphasised that intrinsically motivated learners engage more with a task, while extrinsically motivated learners adopt a surface learning approach. Maybe this forum task did not provide sufficient intrinsic motivation.

Finally, an issue not considered in the development of the forum and not researched in this study, was the effect of demographics on participation. Kovacic (2004) found, in New Zealand, that European learners participated more actively than Asian or Maori learners. This could be due to the fact that a forum is a verbal technique, while Asians, especially, are predominantly visual learners. He also found that age and gender were correlated with participation – higher participation was associated with older learners and female learners (descriptive of the two students who went to the relational level in this forum). No correlations were found for education levels or occupation.

Method of empirical survey

Research design

To gain a better understanding of the low level of task engagement by these students, a survey was developed to investigate the students' reasons for their lack of participation, and to explore their attitudes to the task. The research design was thus cross-sectional, descriptive and mainly quantitative. To meet these objectives, a questionnaire approach was selected as the literature had provided possible reasons for the poor engagement, which could then be tested. Also the volume of students made a more qualitative approach less feasible.

Data collection instrument

The questionnaire was developed to identify the level of student participation and then to measure their attitudes toward factors such as relevance, confidence, knowledge, lack of assessment, guilt, etc. These issues, and the resulting questionnaire, were identified and developed from the literature. Mainly fixed alternative responses (multiple choice and Likert scales) were used to measure respondents' participation and attitudes. An open-ended question was included to better interpret and understand their answers. Yukselturk's (2010) research showing that achievement, gender, and weekly hours of Internet use are related to participation in a forum was published after completion of this survey. With hindsight, these might have been worth investigating, but the data could not be collected after the fact.

Data collection

To maximise response, the questionnaire was applied during class. A convenience sample was used – in other words, those who were in the classroom on the appointed day made up the sample. The lecturer was class tutor, and therefore the students could have felt obliged to respond and/or felt pressured to provide 'positive' answers. For ethical reasons, therefore, it was explained that questionnaire completion was voluntary, and they could choose not to participate – the lecturer had no way of knowing if a particular student participated or not. They were told that no individual names or other form of identification were required. A student collected the completed questionnaires, and visibly shuffled them before handing them to the lecturer, which further ensured anonymity. The lecturer also verbally promised confidentiality and anonymity before handing the questionnaires out, explaining that knowing the identity of individuals was irrelevant to the research. No issues of diversity or equality were felt to be relevant and there were no students in class with any apparent vulnerability issues. The result of the data collection was that 26 students participated, giving a response rate of 46.4% of students registered for the module. Although rather low, it is acceptable according to Bryman (2008), who also mentions that response rate is less relevant in convenience samples. The number of students in class was not recorded, so the percentage refusing to complete the questionnaire, if any, is unknown.

Analysis method

Analysis was conducted using the Statistical Package for the Social Sciences, Version 16, to identify the participation and attitudes of the responding students. The open-ended questions were analysed manually to provide a qualitative view of the respondents' attitudes to the task.

Table 1: Participation in task

Participation	n	%	Reasons for not completing task	f	% of total n*	% of row n in col 2
Completed task	7	26.9		7	26.9	100.0
Attempted task unsuccessfully	3	11.5	Technical problem	1	3.8	33.3
			Other reasons	3	11.5	100.0
Read/looked at task (lurked?)	11	42.3	Forgot about it	4	15.4	25.0
Did not do task	5 16	19.2	No time – too busy	3	11.5	18.8
			Didn't see any benefit	5	19.2	31.3
			Other reasons	6	23.0	37.5
Total	26	100.0				

* Can sum to more than column 3 figures, as some respondents gave more than one reason

Results

Levels of engagement

Table 1 reflects the different levels of engagement with the task (column 1) and some possible reasons for the limited participation (fourth column). The most common reasons given were "didn't see any benefit" in the task, which is consistent with the literature regarding motivation (Salmon, 2002a; Biggs, 2003; Yang et al., 2007), and "forgot

about it”, which is difficult to justify since the task was discussed in lectures each week. This latter reason is probably indicative of the lack of interest in, or commitment to, the task due to other problems, such as being too busy or external pressures (Thomas, 2002; Brown et al., 2006).

Attitudes toward the forum task

To assess attitudes toward the task, means were calculated for the Likert scaled questions, with ‘Strongly agree’ equal to 5 to ‘Strongly disagree’ equal to 1, with 3 thus being the neutral point. A one-sample t-test was used to identify the relative importance of these attitudes and whether they were statistically significant or not. A test value of $p \leq 0.05$ for the desired level of significance was used. Table 2 displays both the attitude scores and the t-test results.

Table 2: Statistics for Likert scaled questions

Questions	One sample statistics				One-Sample T-Test (Test Value = 3)						
	N	Mean	Std. Deviation	Std. Error Mean	t	df	Sig. (2-tailed) *	Mean Difference	95% Confidence Interval of the difference		
									Lower	Upper	
Did my best to give meaningful answer	11	3.545	1.4397	.4341	1.257	10	.237	.5455	-.422	1.513	
No right answer so happy to give opinion	11	3.182	1.3280	.4004	.454	10	.659	.1818	-.710	1.074	
Task helped to expand my RM knowledge	11	3.818	.8739	.2635	3.105	10	.011	.8182	.231	1.405	
Task helped me to learn Wolf forum	11	3.545	.6876	.2073	2.631	10	.025	.5455	.084	1.007	
My marketing knowledge enough for task	18	3.389	1.1448	.2698	1.441	17	.168	.3889	-.180	.958	
Task was of relevance to the module	15	4.067	.7988	.2063	5.172	14	.000	1.0667	.624	1.509	
My banking/finance knowledge adequate	16	3.438	.8139	.2035	2.150	15	.048	.4375	.004	.871	
Comfortable with blogs, and with forum	15	3.533	1.0601	.2737	1.948	14	.072	.5333	-.054	1.120	
Task not assessed, so no risk doing it (e.g., getting it wrong, feeling stupid)	18	2.889	1.1318	.2668	-.416	17	.682	-.1111	-.674	.452	
Task voluntary so no guilt if not done	17	3.059	1.2976	.3147	.187	16	.854	.0588	-.608	.726	

* Bold statistics indicate statistical significance at $p \leq 0.05$

Based on the figures presented in Table 2, the respondents can be seen to have generally agreed (as indicated by a mean greater than 3.5) that:

- they had tried their best when attempting the task (3.545),
- the task helped develop their relationship marketing (RM) knowledge (3.818),
- the task helped them to become familiar with the VLE (3.545),
- the topic was seen to be relevant (4.067), and
- they were comfortable with blogging (3.533).

Reasons for engagement or non-engagement

Possible problems identified from Table 2 (as shown by a mean close to, or below, the mid point of 3) were that:

- they may have worried about their posts being seen as ‘wrong’ or ‘stupid’ (2.889),
- although a voluntary task, there still was some guilt about not participating (3.059),
- nearly half the respondents may have felt there was a ‘correct’ answer, which may have affected their confidence to participate (3.182).

Although these findings are interesting, it is important to assess the statistical significance of the findings in order to draw inferences about the attitudes of the whole class. Findings that were statistically significant were that:

- ‘the task helped to expand my RM knowledge’ ($t = 3.105$, $df = 10$, $p = .011$),
- ‘the task helped me to be familiar with the forum’ (2.631 , $df = 10$, $p = .025$),
- ‘the task was of relevance to the module’ ($t = 5.172$, $df = 14$, $p = .000$), and
- ‘my banking/finance knowledge was adequate’ ($t = 2.150$, $df = 15$, $p = .048$)

These statistically significant findings showed that the students felt the task was worthwhile and helpful, especially considering the fact that ‘relevance to module’ and ‘helped to expand RM knowledge’ showed the greatest level of agreement. Therefore, other possible reasons, in addition to the perceived lack of benefits as show in Table 1, must exist for the lack of the class’s engagement with the task. These reasons may be those problems highlighted previously, namely fear of giving wrong answers or being seen as stupid by colleagues.

Qualitative opinions of the forum task

To further understand the attitudes of the respondents to the task, an open-ended question was included to encourage the respondents to give any other ideas or thoughts about the task. This question asked about “the general idea of tasks being placed on Wolf, the idea of formative assessments or anything else relating to such tasks that you have ideas or feelings about. Any thoughts you have in this regard will be valued.”

The responses were summarised, similar responses were amalgamated into a limited number of general comment categories, and then grouped into positive and negative comments. The result of this analysis is provided in Table 3.

Table 3: Qualitative comments

<i>Positive comments</i>	f
Idea of a task on the discussion forum is good	10
It helps to see other peoples ideas, interesting and informative	5
Provides feedback and enhances one’s knowledge, helps with assignments	3
Online tasks are helpful, helps reading, apply theory in real life situations	3
<i>Negative comments</i>	f
Task must be compulsory (do if have to, not assessed so don’t do it, nothing makes people complete it)	3
Would have preferred a non–online task, i.e., workshop/group based, or lectures with discussion & help	2
Not a good use of time (waste of time, uses up assignment time)	2
Other (access difficulties, more feedback in class, relate to topic (?), never knew about it, not enough emphasis put on such activities, doesn’t suit everyone)	6

Of those who gave qualitative comments, 84.2% of respondents were positive and only 15.8% were more negative. Thus, the students were generally positive about the forum and the task.

Of the positive comments, half were general comments about the task being good. The other half all indicated an understanding of the benefits that the forum task could provide. This seems to cast doubt on the reason for non-engagement given in Table 1, namely that benefits were not seen. Clearly, a large proportion of the respondents do understand the benefits of participating in the task.

Examining the negative comments shows that there were a wide variety of negative attitudes. The one similarity that appears to run through most of the negative comments is to do with the implementation of the task in the lecture theatre. The negative comments seem to indicate:

- a lack of talking about the task in class,
- a lack of integrating it with other classroom activities,
- insufficient face-to-face feedback about postings,
- insufficient help with facilitating access to the site,

It can be concluded, therefore, that the respondents understand and appreciate the value of the task, but their engagement with the task is influenced partly by infrastructural issues (ease of access), but mostly by implementation issues in the lecture theatre.

Conclusions and recommendations

Conclusions

The findings of this survey were generally consistent with previous findings in the literature. The Stage 1 requirements of Salmon's (2002a) model were mostly met, with only a few access problems. The lack of attention to Stage 2 (online socialisation) is reflected in the respondents' comments regarding preference for lectures, in-class feedback and workshops. Stage 4 is about information exchange, requiring considerable moderation. The lack of inter-student interaction and the facilitator's limited postings are indicative of a weakness in Stage 3. All the positive comments were primarily related to Stage 4 type activities, namely construction of knowledge. Thus, for certain students, the task was a success, but for the majority, the lack of scaffolding deterred them from reaching Stage 4. The two-week length of the task was too short to expect anyone to reach Stage 5 (Brown et al., 2006), but, had the task continued, only two of the students may have achieved the "continuing learning through reflection" required of Stage 5.

From the statistical analysis it can be seen that the task itself was adequate, and most students perceived the benefits of the task and felt competent to do it. The issues of the task being voluntary, not having a correct answer and not being assessed were, surprisingly, not important. This implies that the poor level of participation was probably caused by inadequate explanation, motivation, and moderation.

A comparison of the literature and empirical findings suggest a number of steps that should be taken to improve the task to increase participation and engagement with the forum:

- Introduce the task in a computer lab session to ensure all students are accurately introduced to, and know how to access, the task, thus overcoming any infrastructural problems (Salmon's stage 1),
- Provide more detailed and specific instructions, especially showing the task's relationship to the rest of the module,
- Provide a more motivational explanation of the forum, emphasising all the benefits. Repeat this regularly in the face-to-face lectures,
- Get students to add a short discussion and photograph to their 'profiles' to engage them right from the start (Salmon's stage 2),
- Provide some more links to real-life First Direct websites and blogs to link the task more closely to real-life, and
- Increase the quantity of moderation – respond after each posting, for the first few posts, encouraging students to comment on each other's posts (Salmon's stage 3). In these moderator's posts, ask questions that encourage participants to respond at a multistructural, or relational, level (Biggs, 2003).

Contribution to knowledge

Although this research has tended to validate the findings of earlier studies and has suggested some actions for educators to take to increase engagement and make online discussion forums more effective, it has also made some contributions to the knowledge about online discussion forums. These contributions include:

- It has sought to find out from students themselves why they participate or do not participate. Most other studies have investigated reasons for engagement less directly.
- This study has added to the knowledge about engagement with problem content, rather than engagement with the tutor or other students, as called for by Su et al. (2005).
- Most other studies have concentrated on the forum content or the learning that has, or has not, resulted. This study is different in that it focuses on the engagement by the students with the forum problem.
- Salmon's (2003) 5-stage model is helpful in analysing engagement, and yet it has not been widely used in researching online discussions. Its use in this study therefore is a methodological contribution to the online discussion literature.

Future research

Since there is a shortage of research on learner-content interaction (Su et al., 2005), further research into how participants' prepare and complete a post is needed, specifically their opinions on content, how much 'time-on-task'

they spend, the amount of background research they do and whether they interact and discuss with colleagues as part of the preparation. Although this study has highlighted some reasons for lack of engagement, a deeper understanding of these reasons is needed. Therefore, qualitative research, probably involving focus groups, is suggested to fully understand why students do not participate in discussion forums, even though they perceive task benefits and feel it is a good idea.

References

- Andresen, M. A. (2009). Asynchronous Discussion Forums: Success Factors, Outcomes, Assessments, and Limitations. *Journal of Educational Technology & Society*, 12(1), 249–257.
- Balaji, M. S. & Chakrabarti, D. (2010). Student Interactions in Online Discussion Forum: Empirical Research from ‘Media Richness Theory’ Perspective. *Journal of Interactive Online Learning*, 9(1), 1–22.
- Biggs, J. (2003). *Teaching for Quality Learning at University* (2nd Ed.). Maidenhead: Open University Press.
- Bostock, S. (2007). *E-Teaching: Engaging Learners Through Technology*. London: SEDA.
- Brown, N., Smyth, K. & Mainka, C. (2006). Looking for Evidence of Deep Learning in Constructively Aligned Online Discussions. *Paper presented at the Networked Learning Conference*, 10–12 April, Lancaster, UK.
- Bryman, A. (2008). *Social Research Methods*. (3rd Ed.). Oxford: Oxford University Press.
- Groves, M. & O’Donoghue, J. (2009). Reflections of Students in Their Use of Asynchronous Online Seminars. *Journal of Educational Technology & Society*, 12(3), 143–149.
- Guzdial, M. & Turns, J. (2000). Effective Discussion Through a Computer-Mediated Anchored Forum. *The Journal of the Learning Sciences*, 9(4), 437–469.
- Herrington, J., Reeves, T. C., Oliver, R. & Woo, Y. (2004). Designing authentic activities in web-based courses. *Journal of Computing in Higher Education*, 16(1), 3–29.
- Kanuka, H. (2005). An exploration into facilitating higher levels of learning in a text-based Internet learning environment using diverse instructional strategies. *Journal of Computer Mediated Communication*, 10(3). Retrieved November 28, 2010, from <http://jcmc.indiana.edu/vol10/issue3/kanuka.html>.
- Kovacic, Z. J. (2004). Learning styles, sociodemographics and level of participation in a discussion forum. *Paper presented at AusWeb04 - 10th Australian World Wide Web Conference*, 3–7 July, Gold Coast, Australia.
- Littlejohn, A. & Higgison, C. (2003). *A guide for teachers*. e-Learning Series No. 3. York: Learning and Teaching Support Network.
- Miliszewska, I. & Horwood, J. (2006). Engagement Theory: A Universal Paradigm? *ACM SIGCSE Bulletin*, 38(1), 158–162.
- Moore, J. L. & Marra, R. M. (2005). A Comparative Analysis of Online Discussion Participation Protocols. *Journal of Research on Technology in Education*, 38(2), 191–212.
- Perkins, C. & Murphy, E. (2006). Identifying and Measuring Individual Engagement in Critical Thinking in Online Discussions: An Exploratory Case Study. *Educational Technology & Society*, 9(1), 298–307.
- Ramsden, P. (1992). *Learning to Teach in Higher Education*. London: Routledge.
- Reinhart, J., Slowinski, J. & Anderson, T. (2001). Cross-Country Conversations: Techniques for Facilitating Web-Based Collaboration. *Paper presented at the National Educational Computing Conference*, July 25–27, Chicago.
- Salmon, G. (2002a). *e-Moderating: The Key to Teaching and Learning Online*. London: Routledge Falmer.
- Salmon, G. (2002b). Hearts, Minds, and Screens: Taming the Future. *Keynote paper presented at EduCAT Summit, Innovation in e-Education*, 3-5 April, Hamilton, New Zealand.
- Salmon, G. (2003). *e-tivities: The Key to Online Learning*. London: Kogan Page.
- Schier, M. & Curtin, J. (2009). First year student engagement, discussion forums, and reflections on monitoring practice. Paper presented at the 26th ASCLITE Conference, 6-9 December, Auckland, New Zealand.
- Shana, Z. (2009). Learning with Technology: Using Discussion Forums to Augment a Traditional-Style Class. *Journal of Educational Technology & Society*, 12(3), 214–228.

Su, B., Bonk, C. J., Magjuka, R. J., Liu, X. & Lee, S-H. (2005). The Importance of Interaction in Web-Based Education: A Program-level Case Study of Online MBA Courses. *Journal of Interactive Online Learning*, 4(1), 1-19.

Thomas, M. J. W. (2002). Learning within incoherent structures: The space of online discussion forums. *Journal of Computer Assisted Learning*, 18, 351-366.

Valiathan, P. (2002). *Blended Learning Models. Learning Circuits: ASTD's Source for E-Learning*. Retrieved February 20, 2011, from www.learningcircuits.org/2002/aug2002/valiathan.html.

Yang, X., Li, Y., Tan, C-H. & Teo, H-H. (2007). Students' participation intention in an online discussion forum: Why is computer-mediated interaction attractive? *Information & Management*, 44(5), 456-466.

Yukselturk, E. (2010). An investigation of factors affecting student participation level in an online discussion forum. *The Turkish Online Journal of Educational Technology*, 9(2), 24-32.