Styles of Discussion: Online Facilitation Factors

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ABSTRACT

Whilst tutoring a supported online programme in Clinical Education over the last six years, we have become aware that there are significant differences in the ways in which both groups of students – "online learning sets" and individual students, engage in "online discussion" using a VLE discussion board. We have carried out research at various points in the history of the programme to identify different types of "learners". In order to develop our understanding we have now embarked on a major research programme as part of the SOLSTICE Centre for Excellence for Teaching and Learning, to explore the different dimensions of "online discussion", and the role that both design and tutor intervention has in shaping this discussion. This paper reports on the first stage of this analysis. By studying the postings of four separate learning sets simultaneously following the same ten-week module, it identifies two "active" discussion sets and two comparatively "passive" discussion sets. It also identifies different types of discussion and discussants within these four learning sets. This analysis leads to reflections on the reasons for such different styles of discussion, and identifies opportunities for further research into the relative importance of design and tutoring in promoting online discussion.

INTRODUCTION

The challenge of promoting and supporting online discussion.

When the Postgraduate Certificate in Teaching and Learning in Clinical Practice was designed in 1999, it was the first programme of its type within Edge Hill, and within the North-West region to be delivered primarily by means of supported online facilitation. Using a WebCT virtual learning environment, the ten month programme ran using just five face-to-face contact sessions, with the remainder of the facilitation taking place online. The programme was divided into three modules, supported by a non-assessed induction module. Each module was designed around a series of online activities that set specific tasks for the participants to complete, and to share using the VLE discussion board. This approach to structuring the module around a series of activities derived from the pedagogic approach to the programme that the tutor team had agreed in advance.

This pedagogic approach has been described in detail elsewhere. (Schofield, Sackville & Davey 2006) The social constructivist model that was followed placed emphasis on encouraging interactivity within the programme, although it was recognised that there were different dimensions of interactivity. These have been explored at an earlier Networked Learning conference (Sackville 2002). One particular dimension that was emphasised in designing the programme was the student(s) to student(s) interaction. For this to develop the majority of activities were worded so as to encourage collaborative learning through the medium of discussion which it was envisaged would develop using the asynchronous discussion board.

From the initial cohort onwards, the programme team has analysed the types of responses that participants have posted in each of the six intakes that have so far been completed. This was mainly to allow re-design of activities to take place, which might encourage more participation and a "deeper" level of discussion. Some of the changes made as a result of this evaluative research have also been presented to an earlier Networked Learning conference. (Sackville & Schofield 2004).

In the three initial presentations of the programme, all participants shared a common discussion board. Certain activities were designated as personal activities – where communication was between the individual participant and her/his tutor, using the mail facility. Other activities were designated as "small-group" activities or total programme activities. In the first two presentations of the programme all these online activities were voluntary. Reaction from participants and a general concern about "lurkers" or "witness learners" led the programme team to move towards an element of compulsion in the use of the discussion board from the third cohort onwards. Our experience with "lurkers" mirrored that experienced elsewhere (Nonnecke & Preece, 2001; Beaudoin 2002).

In introducing a 70% completion of online activities rule, we were conscious that this would probably alter the nature of the discussion that was taking place, but we felt that the pedagogic approach of the programme – which stressed collaboration and working together to increase our knowledge, was of more importance. However this change did make the programme team review how it handled the discussion board; and one outcome of the review was the establishment of learning sets of around a dozen participants, each set having its own tutor. Each set could only see and access its own postings on the discussion board, although then programme team provided two "catch-alls" for full-cohort discussion – a "general" posting area, and a "problems and issues" posting area.

The 2005 calendar year saw the largest number of participants yet registered on the programme – some 50 students. The tutors soon noticed what they suspected was a significant difference in the way the four learning sets were operating, and it was this aspect of the interaction which the programme team decided to research for this paper.

Discussion, dialogue and debate

Before outlining the research and discussing the results, the programme team had recognised that not all activities would necessarily produce the same level and type of discussion. Some activities were primarily focussed on participants sharing their past and current experiences. These activities were expected to lead to more personal, reflective statements, rather than the cut-and-thrust of disputation. Other activities focussed on the discussion of specific topics, which the programme team felt might lead to a form of dialogue where the sharing of ideas would help participants modify and develop their own thinking. On the one hand the programme team wanted to stimulate intrapersonal dialogue and reflection; whilst on the other hand they also wanted to encourage interpersonal dialogue. This interpersonal dialogue might be social orientated or subject-matter orientated – or a mixture of both. (see Gorsky & Caspi 2005).

The programme team has been influenced by Brookfield and Preskill's seminal work on discussion as a way of teaching. (Brookfield & Preskill1999) One dilemma facing the programme team has always been the extent to which tutors should "shape" the discussion. A constructivist model of learning allows for the fact that different individuals learn in different ways. Similarly groups will "form, norm, storm and perform" in different ways. (Tiberius 1999). There is therefore a reluctance to impose a regular pattern of discussion on groups – spontaneity, innovation and creativity are valued. On the other hand the **social** construction element emphasises the additional value to be gained through collaborative learning, and the programme team want to facilitate and encourage the opportunities for joint learning and construction of knowledge. We return to this dilemma later in our discussion section .

RESEARCH METHODOLOGY

The module to be analysed

This paper focuses on research carried out into the discussion board interactions of a ten week "first" module of the 2005 presentation of the programme. This module ran between 1st February and the 19th March 2005.

Participants were allocated to one of four learning sets, each of which was facilitated by a different member of the programme team. The allocation attempted to ensure an even spread of the different health professions in each group, an equitable spread of gender, a spread of experience of teaching, and an equitable distribution of participants whose first language was not English. No attempt was made to ascertain and allocate on the basis of experience in the use of computers and previous experience of online learning. Before commencing the first module, all participants had undertaken a two and a half week induction module, which introduced them to each other, to online learning, and to the use of the VLE. This module also included participatory activities so that they did have experience of posting to both the mail facility and the discussion board facility before the commencement of the first module.

There were ten online activities in the first module, of which the participants were required to complete seven within the time scale of the module. Nine of these were learning set activities, the tenth was a personal activity involving each participant and their tutor using the mail facility. The activities all required participants to reflect on their own experiences or to read specific course material before making a posting on the discussion board. Most activities asked them specifically to respond to the postings of other members of their learning sets.

The data analysis

The postings on the discussion board from the four learning sets were analysed.

In the first stage a quantitative analysis was completed which looked at the number of postings in each group, and by each individual within the group. The timing of the posting was reviewed. Postings were either centred around one of the nine activities; they were in two general strings set up by the tutors – "General" and "Problems and issues"; or they were in discussion strings which had been initiated by the participants themselves, rather than by the tutor.

The second stage consisted of a qualitative analysis. This was based on textual analysis. The two researchers agreed a four point scale on which to classify each individual posting. We reviewed scales others had used in similar research, but felt that they didn't capture the essence of what we were investigating. Each researcher took two learning sets (not their own) and classified the postings. These classifications were indicative only – they should not be seen as "hard" categorisations. Indeed it was clear to the researchers that some postings moved between categories as they proceeded, and the categorisation should best be envisioned as a continuum, rather than as self-contained units.

The categories used were:-

- Statement. A view expressed. A "closed" statement. Not inviting response or comparison. A position statement.

- Limited response. Refers back to an earlier posting, but only in a limited way. May be encouragement – eg – "Yes – I agree".

- Questioning response. Opens up the topic. Expands on ideas. Makes comparisons.

- Dialogue. Building on ideas, taking them further, introducing new interpretations, joint problem-solving, disagreements and disputes.

The closest overlap was in the distinction between a questioning response and dialogue. This is the area where the two researchers had to discuss the findings after individual ascription to one or other category.

Alongside these categories, the postings were analysed using Karen Swan's classification of various affective, cohesive and interactive indicators. (Swan 2001) Her affective indicators include – paralanguage, emotion, value, humour and self-disclosure. Her cohesive indicators include greetings and salutations, vocative, group reference, social sharing and course reflection. Her interactive indicators include acknowledgement, agreement/disagreement, approval, invitation, and personal advice. The researchers found this scale useful in capturing the social aspects of interaction and postings that underlay the actual words and academic focus. Combining the quantitative and qualitative analysis allowed the researchers to build up a picture of the interaction and styles of discussion that had taken place within each of the four learning sets.

MAIN FINDINGS OF THE ANALYSIS.

Quantitative data

The four learning sets had different total volumes of postings to the discussion board. Two were very active, whilst two were comparatively quiet.

Table 1. Total number of postings on the module.

Discussion Forum:	Total Postings:
Learning set 1.	131
Learning set 2.	194
Learning set 3.	260
Learning set 4.	306
"General issues" area (full cohort)	161

"Problems and issues" area (full cohort)	73
Total postings	**1095**

We then moved to a quantitative analysis of each of the four learning sets, identifying the number of postings in each of the nine collaborative activities. Table 2 demonstrates the differences in the number of postings between the learning sets in relation to each of the activities and in relation to both mutual support and problem solving activities that the learning sets initiated themselves.

The General discussion board and the Problems and Issues discussion board were also analysed to see whether the members of the "quieter" learning sets had been using these general boards instead of their learning set board. This was found not to be the case, indeed the use of these two boards paralleled the use of the learning sets boards, with members of the learning sets 3 & 4 being twice as active, as members of learning sets 1 & 2.

Table 2. Number of postings in each group for each activity/string.

(number of participants for that activity is given in parenthesis).

Learning Set: Total postings:	1	2	3	4
Activity 1.	23 (10)	17 (10)	47 (14)	55 (11)
Activity 2.	19 (12)	13 (10)	51 (13)	25 (11)
Activity 3.	14 (10)	24 (10)	24 (11)	31 (11)
Activity 4.	14 (10)	14 (12)	25 (13)	15 (11)
Activity 5.	14 (9)	22 (11)	29 (13)	41 (11)
Activity 6.	11 (9)	20 (12)	19 (13)	23 (11)
Activity 7.	12 (10)	12 (11)	19 (12)	18 (11)
Activity 8.	6 (6)	13 (8)	16 (11)	21 (9)
Activity 9.	8 (7)	15 (11)	5 (5)	14 (9)
Mutual Support	6 (3)	18 (6)	15 (6)	53 (10)
Problem-solving	3 (2)	8 (2)	4 (2)	-

What table 2 doesn't demonstrate is that within learning sets 3 & 4 there were comparatively "quiet" members. Significantly these were often the two members in each of the learning sets who could best be described as laggards – they tended to post their messages after the vast majority of postings had been made. It is also interesting to note that there were some differences between learning sets in who took the initiative in making the initial posting for each activity. In learning set 4 six different participants led off, with no single person leading off more than twice; whilst in learning set 2 , only four different participants led off, with one of these initiating five of the nine activities.

This numerical analysis also enabled us to identify those participants who were active discussants, and those who generally just completed one posting per activity. The latter group were complying with participation requirements, but going no further. They were not really engaging with the collaborative learning ethos of the programme.

Qualitative data – Styles of Postings

Each activity and other posting was classified using the four point scale described above. The scores were then aggregated and the following "styles of postings" table was produced:

Table 3. Style of postings: total per Learning Set

Learning Set: Postings:	1	2	3	4
Statements	70	88	65	52
Limited response	33	36	87	81
Questioning response/ Opening out	1	9	23	47
Dialogue	-	-	17	15
Other (Access issues, social interaction)	9	9	32	80

Table 3 demonstrates that the more active learning sets were also those most likely to move along the continuum from making personal statements to engaging in discussion and dialogue.

The more detailed analysis based on each activity also indicated that some activities were more likely to lead to a questioning response and dialogue, than other activities, where the styles of postings were primarily statements or limited responses. This finding held good for both of the more active learning sets (3 & 4), as well as the less active sets (1 & 2). As indicated earlier the programme team recognised that this might happen in advance, since some activities were deliberately designed to lead to more of a reflective statement of experience. However the more immediate concern is the difference in the other collaborative activities between the two learning sets who engaged in questioning responses and dialogue, and the two that did not.

Qualitative analysis – affective, cohesive and interactive indicators

It is at this point that the secondary analysis of the postings in terms of Swann's affective, cohesive and interactive indicators became very important.

This analysis revealed a number of significant differences between the two pairs of learning sets:

- Sets 1 & 2 tended to either not include a salutation (preferring to move straight into their posting) or they tended to address their posting to the tutor or to "everyone". In contrast sets 3 & 4 made more use of salutations, and often used vocative responses to individual participants on the learning set.

- Sets 1 and 2 tended to make longer postings on a single occasion, whilst learning sets 3 & 4 made fewer "statements", but far more shorter postings.

- Sets 1 & 2 often opened up more separate threads on the same topic, and marginally made more use of attachments; whilst learning sets 3 & 4 were more disciplined in following up within a single thread.

- Sets 3 & 4 offered a lot of encouragement to each other, even within "ordinary" postings. They used more humour, and there was more "give and take". Learning set 4 noticeably worked more collaboratively – summarising three of the longer activities for each other, and engaging in constructive criticism when reviewing each other's essay plans.

- Both researchers independently noted the greater feeling of cohesion within learning sets 3 & 4.

DISCUSSION

Seeking an explanation

How can we explain the differences in styles of discussion between the four learning sets? As has already been stated, the make-up of each group, within the categories of gender; length of experience; type of health worker; and ethnic background, was largely equal. It is hard to envisage that there was any easily identifiable characteristic that would have predicted which of the two learning sets would have been active, and which would be relatively passive. However, when we analysed the postings on the discussion board for the two and a half week Induction Module (see above) it is already noticeable that members of learning sets 3 & 4 started to dominate the postings even though all the participants were engaged in posting to the same discussion board within this induction module.

One explanation for the difference in style of posting could be tutor input. Mazzolini and Maddison have investigated this factor in some detail, and have concluded that the ways in which tutors post to discussion boards can influence students' postings and perceptions, although not always in expected ways. They suggest that frequent postings by tutors did not lead to more student postings, and that the more tutors posted, the shorter were the lengths of discussion overall. (Mazzolini & Maddison,2003). We analysed the tutors' postings to the four learning sets, and found no significant correlation between the number and type of tutor postings and the type of online discussion which ensued. This is not to argue that there is no role for the tutor in "guiding" discussion. Indeed one finding from this research is that tutors may need to be especially aware at the commencement of a programme to gauge the type of discussion which is developing, and to facilitate, in a more overt way, the hoped-for form of discussion which the programme team would like to see.

In this research the differences seem to come from the first couple of postings in the first activity that appear to have set a precedent which the learning set then followed for the rest of the module. Thus, in one learning set (Set 2) the first responses were addressed to the tutor by name, rather than to other members of the group. Discussions with the two tutors of the less active groups suggested that members of those learning sets responded individually and privately to the tutor, making comments about the activities. These two learning sets can be seen as more tutor-focussed in their responses. Was this because they adopted a more mechanistic approach to getting activities done, rather than sharing with the group as a whole?

The behaviour of individual participants in interacting with the course and with the VLE is clearly an important factor, which warrants further investigation. Hewitt suggests a tendency to concentrate almost exclusively on unread postings, which is significant in both the structuring, and ultimate death, of discussion threads (see for example, Hewitt 2003, Hewitt 2005). This is in keeping with the researchers' own observation that timing is an important element in achieving and maintaining active discussion, and the programme team therefore draw up a 'calendar' for the discussion-board activities within each module to help to achieve a cohesive dialogue.

A possible tendency to concentrate on unread postings may in part explain the importance of time-scale in online discussion – if all postings are made within a short space of time, then participants will be more likely to remember the whole of the developing argument, and will therefore be in a position to respond to all facets of the debate; whereas if the time-frame is longer (for example, over a number of weeks), then participants will be less likely to maintain a full over-view of the dialogue, and will respond only to the most recent postings. The significance of response times and message content on discussion threads is being investigated elsewhere by Jeong. (Jeong 2004)

However, this also implies that the quantity of postings made to the discussion board may become an influential factor - the more unread postings on any given day, the greater the likelihood of achieving an ongoing dialogue. Indeed, this does seem to be an additional factor in Learning Sets 3 & 4, where it can be seen that the volume of contributions does, to a certain extent, link to the achievement of dialogue in some activity strands; whereas the learning sets with a more limited number of postings (Sets 1 & 2) fail to achieve this higher level of interaction.

The next stage of the research

This research has focussed on the first three months of a ten month programme. Tutor observations of their learning sets, and the raw data on the number of postings per learning set in modules 2 & 3, suggest that some of the learning sets may have altered their styles of discussion as the programme proceeded. For example whilst Learning Set 4 remained the most active in the remainder of the programme, Learning Set 3 declined in its activity in module 2 and was only average in module 3. By contrast Learning Set 2 significantly increased their

activity in module 2, and was also average in module 3. Learning Set 1 also saw an increase in activity in module 2, but a decline in activity in module 3. The next stage of the research will carry out a textual analysis of these remaining two modules, and it will examine the styles of discussion over the whole ten month period. At the same time, one of the activities towards the end of the second module required the participants to reflect on the online discussions, and to analyse their own roles in their online learning sets. These responses will also be analysed and incorporated into the final research report. Finally similar analysis will be carried out on other programmes which use this same form of programme delivery – the MA in Clinical Education and the MA in E-Learning – to see whether similar styles of discussion develop on those programmes.

Lessons for Tutors and Programme designers

- The critical nature of the first half dozen postings within a learning set; and the possible need for early intervention by the tutor. The usual approach adopted by this programme team, in keeping with the ideas of Mazzolini and Maddison, has been to hold back at first, monitoring but not actively intervening in discussion, to allow the participants to develop their own ideas, and thus developing self-directed active learners, rather than tutor-dependent passive learners. However, if it can be clearly identified that discussion of the requisite type is not developing, perhaps early tutor intervention will be helpful rather than a hindrance.

- Revisiting the induction of participants as online learners, to try to reassure, and also to model the type of dialogue we as tutors would like to see. It has been apparent, from the changes already observed in subsequent modules, that some participants (notably in Learning Sets 1 & 2) were uncertain of the formal requirements regarding posting on the discussion board, and this appears to have hindered their full active participation in discussion during the first module. It is possible that these individuals would have found additional guidance helpful.

- Greater clarity at the start of the programme regarding the function of the online discussion board would benefit individuals who are, perhaps, less confident to articulate their ideas in a forum of their peers. There is clearly a role for the learning set tutor in supporting individuals within their learning sets in making "better" use of the discussion board. This support may be delivered via the individual mail facility or by other means of communication (e.g. telephone or text messaging).

- Revisiting the actual activities, and ensuring the instructions convey what we hope the participants will do, and achieve by completing the activities. Good design provides the foundation for encouraging online dialogue – but the role of the tutor, particularly in the early stages of group formation, could be crucial in promoting interpersonal interactivity throughout the life course of a module or the programme.

REFERENCES

Beaudoin,M.F. (2002). Learning or lurking? Tracking the "invisible" online student. *The Internet and Higher Education* **5**, 147-155.

Brookfield,S.D. and Preskill,S. (1999). *Discussion as a Way of Teaching* Open University Press. Buckingham.

Gorsky.P. and Caspi,A. (2005). Dialogue: a theoretical framework for distance education instructional systems. *British Journal of Educational Technology* **36,** 2. 137-144.

Hewitt,J. (2003). How habitual online practices affect the development of asynchronous discussion threads. *Journal of Educational Computing Research,* **28,** 1. 31-45.

Hewitt,J. (2005). Toward an understanding of how threads die in asynchronous computer conferences. *Journal of the Learning Sciences,* **14,** 4. 567-589.

Jeong,A. (2004). The combined effects of response time & message content on growth patterns of discussion threads in computer-supported collaborative argumentation. *Journal of Distance Education* **19,** 1. 36-53.

Mazzolini,M. and Maddison,S. (2003). Sage, guide or ghost? The effect of instructor intervention on student participation in online discussion forums. *Computer and Education.* **40,** 237-253.

Nonnecke,B. and Preece,J. (2001). Why Lurkers Lurk. *AMCIS Conference.* (Boston, June 2001).

Sackville,A.D. (2002). Designing for Interaction. In *Proceedings of the Third International Conference – Networked Learning*. (Sheffield University) 534-541.

Sackville,A. and Schofield,M. (2004.) A framework for the evaluation of networked learning and the implications of evaluative research for the process of re-design. In *Proceedings of the Fourth International Conference – Networked Learning*. (Lancaster University) 653-658.

Schofield,M., Sackville.A. and Davey,J. (2006). Designing for Unique Online Learning Contexts. In de Figueiredo,A.D. and Afonso,A.P. (Eds) *Managing Learning in Virtual Settings*. Information Science Publishing, Hershey,PA.

Swan,K. (2001). Building learning Communities in Online Courses: The Importance of Interaction. Unpublished paper presented to the *International Conference on Online Learning*. (Orlando, Florida, November 2001)

Tiberius,R.G. (1999) *Small Group Teaching* Kogan Page. London.