

## Facing the Challenge of e-Learning: Reflections on Teaching Evidence-Based Practice through Online Discussion Groups by Phil Clegg and John Heap

Increasing use of e-learning means that online discussions are often the glue that binds a group of students together to become a collaborative learning community. Yet staff members who must facilitate these discussions usually have no training, no role models, no benchmarks, and no quality standards regarding this particular medium. To understand this issue better and move toward a framework for effective facilitation, this article audits and evaluates the facilitation of online discussion groups within two consecutive modules of a preregistration nursing degree course for Adult and Mental Health nursing students. It then draws out lessons for facilitators to help them improve the effectiveness of their interactions and interventions. While the recommendations in this case have specific relevance for online learning activities in the medical sciences, we believe that they have relevance for other academic contexts as well, particularly for academic programs that use online discussion boards to generate student reflection on professional practice.

## Evidence-Based Practice and Online Facilitation: The Case at Leeds Metropolitan University

Within the last 10 years, <u>evidence-based practice</u> (EBP) has become firmly established in relation to research, policy, and clinical decision-making agendas within the U.K. National Health service, making this a core component of curricula within nursing and other health-care related programs (Nursing and Midwifery Council 2004). Simultaneously, the advent of e-learning within higher education means that the possibility has arisen for supporting learning related to EBP with technology that links the student directly to databases and other online resources, thus helping to facilitate a critical engagement with clinical trials, systematic reviews, and other forms of evidence available electronically in addition to other sources.

The two EBP modules discussed in this paper were delivered to the same cohort of students in years one and two of their three-year undergraduate nursing degree at the Leeds Metropolitan University <u>School of</u> <u>Health and Community Care</u>. The modules were delivered entirely online, apart from an initial briefing session in the classroom and occasional face-to-face tutorial support in the computer laboratory. Both modules emphasize the status of students as independent learners with the tutor in the role of facilitator and resource person; the tutor sets a task for the students to complete and intervenes only if students appear to be having problems (<u>Exhibit 1</u>).

Such an approach, however, raises a number of questions:

- How do facilitators recognize the need to intervene in discussions?
- How successful are they at recognizing potential intervention points?
- What style of facilitation is appropriate in the context of e-learning?
- How do facilitators promote independent learning within the module?
- How do facilitators balance the need to give students space to solve their own problems with the need to address anxieties that students may feel in an e-learning environment?

To answer these questions and to develop a more refined model of e-facilitation, student contributions to a sample of three message boards from the EBP modules were audited by means of a close, reflective reading of the text in order to evaluate the facilitator interventions made and to identify points of missed opportunity for intervention. The three message boards reviewed can be considered to represent three levels of a hierarchy of abstraction in term of the cognitive skill required by the student:

- message board 1 (level 1)—presenting self, relating to each other, making sense of self in relation to others;
- message board 2 (level 2)—relating new concepts to practice, making sense of professional relationships and clinical environments; and
- message board 3 (level 3)—relating new (statistical) concepts to challenging academic materials.

Reflective practice requires questioning the effectiveness and ineffectiveness of a particular practice and thinking creatively about how the practice could have been done differently. In answer to the latter concern, different intervention goals appropriate to each of the three levels of abstraction are introduced below and summarized inclusively in <u>Exhibit 2</u>. Model examples of these interventions appear in the exhibits for each level (see links to exhibits below). These examples will be of interest to other facilitators wishing to audit their own message boards for a similar purpose and may also be useful in facilitator training.

## Message Board 1: Student Introductions

This board allowed first-year students to introduce themselves to each other and familiarize themselves with the use of discussions boards within <u>WebCT</u>, the standard course management system used within the university. Basic instructions were given by the module tutor to encourage students to use the board, to explain general parameters relating to factors such as length of message and form of content, and to set expectations concerning the nature of interaction and exchange (i.e., issues such as politeness or netiquette). After these preliminaries, the students were left to themselves with very little input or feedback from module tutors.

The lack of input from tutors in this case was deliberate—to allow students the freedom to explore the use of discussion groups. (In other cases where tutors made little input, it may have been that tutors were overwhelmed by the numbers of messages posted by students; that they wished to remain aloof from personal or non-academic messaging; that they were uncertain as to what responses to make; or that they imagined—wrongly—everything was going according to plan with no further action required.)

Some students gave a full introduction as suggested by the module tutor. Others posted shorter messages of a similar length and content to those that might be found in mobile-phone text messages. The level of interactivity was high, and generally, it seemed unnecessary and possibly counterproductive for the module leader to intervene. At first it seemed disappointing when students gave one-line, text-style messages, and it was tempting to intervene with a request encouraging students to expand their contributions. Some of these posts did not appear to require a response. Others received a response or responses from fellow students who sometimes attempted to draw each other out themselves. Some others received no response from fellow students yet, on reflection, might well have merited a response from tutors (identified as *potential tutor response points* within the developing model).

Although many level 1 messages had a generally sociable and light-hearted flavor, some revealed a number of anxieties, including specific worries about the module and the course and more general concerns about other aspects of student life (i.e., child care, travel arrangements, financial matters). The online discussion group thus revealed needs for support which otherwise might not have come to light. However, student needs often went unacknowledged by peers and module tutors alike, and the sometimes diffident attempts of students to communicate often met with a null response. Tutors often missed potential response points in student contributions and other opportunities to facilitate discussion.

Perhaps a more positive and responsive online experience could have been provided by appropriate facilitator intervention to help shape discussion. The key factor in facilitation is recognition of the following potential response points for the level 1 board:

• students saying that they "did not have much to say" and "did not know what else to put";

- students describing difficulties in combining study and home life;
- students discussing their worries and need for support;
- students using inappropriate language; and
- students expressing lack of confidence in relation to an impending examination.

Not all potential response points related to expressions of difficulty or distress. Students debating an academic issue (the value of U.S. research within U.K. practice) and a student who was excited about her first clinical placement also offered opportunities for facilitator intervention of a supportive type.

Based on the above cues, we propose a number of possible facilitator responses for this level aimed at the following goals:

- showing interest/responsiveness;
- being nonjudgmental;
- orientation/reorientation of student to task;
- encouraging interactivity;
- promoting description;
- promoting discussion;
- validating feelings;
- acknowledging concerns;
- giving advice on resources; and
- acting with prudent inaction (doing nothing but doing it with a purpose).

Examples of how responses relating to these goals might be modeled in practice are given in Exhibit 3.

#### Message Board 2: EBP—Examples from Clinical Placement

This board allowed students to establish links between the theoretical concepts they studied in the research and their own practical experience in health care settings and to discuss any problems or discrepancies they discovered in the process. Students contributed to this discussion board in a lively fashion, willingly offering their comments and observations. However, there tended to be little interaction and development of these initial posts on the message board—other than "I agree"—and little inclination to develop themes initiated by other students despite the fact that students often identified a gap between the theory (related to infection control) in this module and the practice as they found it in their clinical environment.

For example, student posts created a patchy picture of compliance with research-derived best practice related to hand washing. Many of them described how much information was available on hand washing in the form of posters, infection control policies, and instruction from staff as well as how various cleansing agents were made available for nurses. However, many examples were given of failure to comply with the hand-washing rule because of human error, time factors, the lack of washing agents and other materials, and so on. Some students reported cases where hand washing was not seen as important, and some posts expressed the difficulties posed by needing to wash one's hands in community settings. Despite the lack of interactivity and discussion, examples given in the student posts provided valuable and striking illustrations of the case for an evidence-based approach to nursing practice. The posts made clear that, at the group level, students fully understood the importance of evidence for practice although other debates (e.g., the importance of combating the stigma that unfortunately can still be found in relation to mental illness) needed further development.

Facilitators might have helped shape a more in-depth and discursive approach to the topic by praising posts that showed academic excellence and by further probing and teasing out the changes that might be required to enable staff to follow best practice on all occasions. The students themselves raised the issue of a

theory/practice gap in nursing, a well-documented phenomenon in nursing literature (Crane 1991; Landers 2000). However, without further facilitator intervention, the students appeared to have difficulties perceiving what to do regarding the issue and how to prevent it from becoming self-perpetuating and demoralizing.

A number of opportunities for facilitation (i.e., potential facilitator response points) arose in both the affective and cognitive domains, with the more powerful expression of need lying in the affective domain. Among such opportunities were posts that demonstrated the following behaviors and expressions of feeling:

- sharing painful experiences (expressions of anxiety, self-recrimination, and hurt feelings);
- expressing difficulty coming to terms with the realities of patients' lives;
- · sharing insights into mistakes in professional life; and
- describing interpersonal and ethical dilemmas in clinical practice.

As was the case in the first message board, not all potential response points arose from expressions of distress; students also expressed positive feelings in relation to the learning of new knowledge and skill.

Based on the opportunities for response arising from student postings, facilitator goals in this context include the following:

- demonstrating that the facilitator is present for (i.e., listening to) students;
- probing and teasing out of professional issues;
- giving support online;
- referring students to other appropriate support mechanisms;
- giving positive feedback to reinforce learning;
- giving praise for academic excellence;
- raising subjects for debate; and
- pointing out links between theory and practice.

Examples modeling these goals can be found in Exhibit 4.

#### Message Board 3: Research Methods and Statistics

This board allowed students to draw upon course concepts regarding statistical measurement in critiquing a selected journal article on nurses' smoking habits. Many errors and weaknesses in student contributions on this board were overlooked by students and facilitators alike. Some attempts were made by facilitators to encourage students to contribute and guide them to address difficult areas of content. However, facilitators and fellow students alike tended not to confront statements that were unclear or undeveloped. For example, one student recognized the role of random sampling in the journal article but did not elaborate on other key elements such as the degree of representativeness, the specific method of sampling employed, or the significance of bias in the sampling method. Neither the student peers nor the facilitator endorsed or challenged this posting; in cases where students did respond to one another's postings, responses were often limited to "I agree" or comments that otherwise avoided focused debate regarding the statistical method adopted in the article.

This reluctance to debate issues clearly has implications for helping students develop greater understanding of the issues involved. The more general lack of multilayered responses and discussion development as well as the tendency to avoid controversy means that students did not get adequate feedback on misunderstandings, errors, and weak argumentation.

The following behaviors and expressions of need could have served as potential response points for facilitators:

- demonstrating willingness to engage with difficult materials;
- expressing concerns about the value of their contributions;
- · expressing anxiety about not knowing;
- showing reluctance to debate difficult issues;
- showing reluctance to discuss problems in understanding new concepts;
- showing difficulty in focusing on questions posed;
- showing fear of making mistakes; and
- showing difficulty understanding expectations of academic work.

Facilitator interventions appropriate to this level should be aimed at the following goals:

- maintaining positive relationships with students;
- giving clear feedback where necessary at individual and/or group levels;
- giving positive feedback to develop professional and academic confidence;
- directing/redirecting students to task;
- challenging misconceptions;
- questioning global statements;
- acknowledging strengths of student contributions and giving encouragement to build on them;
- encouraging discussion to support further development of student analytical skills;
- encouraging intellectual risk-taking;
- encouraging student interactivity in relation to difficult concepts;
- encouraging student independence;
- · clarifying expectations of academic work; and
- encouraging accuracy of referencing.

When attempting to correct misconceptions and errors, facilitators may be faced with various dilemmas: whether to reply to individuals privately, make replies to individuals available to the whole group, or directly reply to the whole group. Issues of parity can arise here (i.e., student contributions form part of their module assessment), and critical comments can undermine student confidence in dealing with online debate. Many of these dilemmas can be resolved by avoiding the temptation to make authoritative pronouncements on problem areas and instead to concentrate on opening up further discussion of such areas, taking care to reward all attempts by students to engage with the issues. Examples of facilitator interventions in relation to the above needs and dilemmas are given in the reflections on message board 3 (<u>Exhibit 5</u>).

#### **Toward a Practical Model of Facilitation**

Based on our audit of the online discussion postings, the key questions for further development of student learning in this medium may be grasped in their entirety. The facilitator must decide whether or not to intervene, when to intervene, how to fix occurring problems (i.e., by the facilitator or by the student peer group), what type of intervention should be made and its appropriateness to the level of student learning, and whether the intervention is best targeted at the individual student or the whole peer group. Since such decisions will necessarily vary from one facilitator to the next, from one student population to the next, and from one learning environment to the next, developing a model for practice suited for all circumstances remains a challenge.

However, to give greater structure to the facilitator's decision-making process, we developed a simple model (adapted from <u>Michel Thomas</u>) to represent the perceived effectiveness of discussion posts based on the tennis terminology of *ace*, *net*, and *fault*. An ace focuses sharply on the task set, contains fully determined arguments, and has no inaccuracies. A net demonstrates some engagement with the task set and makes some useful links with module resources but contains some misleading statements, inaccuracies, or arguments that are insufficiently determined. A fault shows little understanding of the task set or the paper or

contains substantial inaccuracies. The ace/net/fault model provides facilitators with a simple framework to help make explicit their own thinking concerning potential intervention points and provide a pathway for decision making. The advantage of this model is that it is sufficiently defined in terms of its overall criteria while sufficiently generalized to allow for further adaptation by the facilitator to suit the learning environment in question. Having tested the model by applying it to the facilitator responses audited in this study, we envision its further development for a future study (<u>Exhibit 6</u>).

In addition to assisting decision making, the model can also be used as a self-monitoring mechanism to aid the professional development of the facilitator. To become more expert as such, facilitators must necessarily engage in reflection on student contributions and their own facilitator interventions. The ace/net/fault model can be used as a portfolio template for model interventions and intervention types by any facilitator engaged in online discussion groups. Creating such a portfolio will help facilitators develop their own individual styles of facilitation since the model does not prescribe any particular style of intervention. It allows facilitators to continue to work in the styles that suit them while enabling them to reflect on and make choices about alternatives.

# Conclusion

The promotion of learning through online discussion groups requires skilled facilitation by educators who are able to recognize when and how to respond to expressions of student need and how to shape, promote, and respond to group interaction. Successful facilitators combine critical judgments about the content of contributions with clear decisions about the intervention process. The complexity of this process means that facilitators need to exercise skills of self-awareness in relation to how they make decisions with regard to student learning.

Based on our audit of three online discussion boards in the nursing program of Leeds Metropolitan University, we have identified the key decisions that require further reflection by facilitators in this particular environment; in turn, we have developed a model of practice that may serve to give structure and focus to such reflection in other online environments as well. A number of projects for further development of the model are possible, including studies that compare the use of the model by different facilitators and in different educational contexts and that investigate the model's use in the context of co-facilitation. Readers who would like to collaborate in such a project are welcome to contact the authors with their proposals.

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