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# ENABLING PROFESSIONAL COMMUNICATION FOR PRACTITIONERS ACROSS EUROPE

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## Abstract

*This paper describes the evaluation of an online training course in Neonatal Medicine, which involved medical practitioners from across Europe. The paper focuses on the findings from an analysis of the online discussion groups. The project aimed to develop an online course for practitioners and included the development of four modules. Delivery was achieved using hybrid technology via distribution of course materials on CD ROMs accompanied by an online learning environment and associated Web discussion boards. Twenty participants completed the programme over four months, supported by five tutors and one project manager. The main conclusion from the external evaluation was that the project had met its stated aims and objectives and that the project team had delivered a successful online course. Both tutors and tutees engaged enthusiastically with the course throughout. It was evident that participants enjoyed the course and found it valuable, with the most important element of the course consistently being cited as the opportunity the course afforded for the sharing of expertise and best practice with colleagues across Europe.*

## Introduction

The growth in the use of the Internet in the past five years has been paralleled by a growth in the number of online distance learning courses. The perceived benefits of this form of learning include the opportunity to learn anytime, anywhere and to communicate and collaborate virtually across countries. For teachers online courses have been seen as beneficial as a way of reaching new student markets, offering more flexible learning opportunities for students, facilitating the tracking of student progress and activities, as well as providing an opportunity for creating new and innovative learning environments.

A variety of Virtual Learning Environments (VLEs) and associated tools have developed to support the developed of online courses and distance learning. There is now a wide range of VLE systems, both bespoke and off the shelf. The Joint Information Systems Committee (JISC) recently carried out a review of current activities in the development of VLEs and has commissioned a number of projects to develop Managed Learning Environments (MLEs), where the VLE is integrated into University systems such as student records, personnel data, finance and other administrative back end systems [1]. A review of VLEs and their use in UK medical schools has recently been undertaken [2]. It presents data collected from 21 medical schools around the UK, including 6 in-depth case studies.

A considerable body of research has been carried out on the effectiveness [3] of online courses. However many research questions still remain unanswered. How effectively do these kinds of systems support learning? Are they more effective than face-to-face learning? Which aspects of learning are best suited to online learning and which to face-to-face? How much time does the development and implementation of online courses take? What skills do teachers and students need in order to use online learning environments effectively? A sample of some of the different research strands and activities can be found in [4]. In addition, Lockwood and Gooley have recently co-edited a collection of essays on successful developments in online and web-based learning [5].

## The online course in Neonatal Training in Europe

The project being evaluated was funded under the Leonardo da Vinci European programme and consists of a lead site (Southampton University NHS Trust) working in conjunction with three partner sites across Europe (Denmark, Germany and Greece). The project aimed to develop an online course

in Neonatal training, consisting of four learning modules. The course was to be delivered online to doctors across Europe, supported by a core of tutors from the project team.

The course was divided into four modules: Neonatal Sepsis, The Central Nervous System, Outcome Evaluation for Neonatal Conditions, and Neonatal Respiratory Module. Each module was designed in the same way, beginning with the module objectives, followed by four sequential sections: revision materials, curriculum topics, resources, and a section entitled 'the future'. The intention was that modules would be designed from good, solid pedagogical principles, with an associated set of clear learning objectives and outcomes. The four modules ran consecutively, each module running for approximately one month. Each module required four learning hours a week, 16 in total. Overall the whole programme therefore represented 64 learning hours. The number of hours for each module related to the standard curriculum that ordinary medics complete.

The online resource was divided into two 'zones', a CD-ROM zone and a Website zone. All materials for the course were made available on CD-ROMs, which were distributed to participants by post at the start of each module. All materials were also mirrored on the Website. The hope was that this would reduce the amount of time students needed to be online and hence reduce costs. It was also hoped that this approach provided a more structured user-friendly learning environment for the participants.

The project used both asynchronous and synchronous communication. Asynchronous communication was divided into three main areas, i) group discussion conferencing rooms (for discussion of particular topics related to aspects of the learning materials), ii) a coffee room (open to everyone, for general communication and socialising) and iii) a staff room (closed for tutors to discuss administration and teaching issues). Participants also had access to a synchronous chat and paging facility.

### **Evaluation methodology**

A multi-faceted evaluation was carried out, following the philosophy of utilization-focused evaluation outlined by [6]. This consisted of the following components: i) an evaluation questionnaire distributed to all participants, ii) an analysis of data gathered via two online reflection fora, and iii) an analysis of the Website and associated CD ROM material. Full details of the evaluation have been reported elsewhere [7], this paper will concentrate on the analysis of the online discussion fora.

Two online reflection fora were set up, one for discussion with the supervisors and one with the trainees. In addition, the course was monitored throughout the duration of the programme and a detailed evaluation of the course materials and the CD ROM content was carried out. The discussion boards associated with each of the four modules were analysed, along with data gathered about individual participants' usage, logins and postings.

### **Data analysis**

Ten participants contributed to the online reflection fora, a total of 12 postings were received under the trainees' online forum and two under the supervisors' forum. A number of key themes emerged, some of which echoed the findings from the evaluation questionnaire. Feedback on the Website was mixed; on the one hand they felt that it was good, but a navigational issue arose in terms of being able to find things once they were up for a while.

The pattern of usage of the Website was carried out. A total of 19 participants were initially enrolled on the programme, supported by 5 tutors and 1 project manager. Seven participants with very low logins (less than 20 logins) are deemed to have dropped out of the programme and their participation was excluded from the evaluation. A new cohort of 6 participants joined the programme half-way through and completed Modules 3 and 4 and were therefore included in the final evaluation and analysis. As might be expected usage of the Web site by the 5 tutors and the project manager was very high throughout the programme. Usage varied between participants but typical logins for active participants were in excess of 100 logins during the programme. From the data gathered from the questionnaire, patterns of when participants accessed the site varied, showing that they did study at a range of times across the cohort. In general each participant tended to have their own preferred study

time, some choosing to work afternoons, others in the evenings, some only during the week, whilst others also accessed the course at weekends. This flexibility of working patterns was evident in the responses from participants as well. For example one participant stated:

*“.... I find doing this relatively easy as it fits round my work commitments and family” (KT)*

This was reflected in her use of the Website, which was during the evening, Monday to Friday. Most participants logged into the site on a regular basis to keep up to date with new materials and messages being posted.

Not surprisingly, the highest number of logins was from the project manager, followed by the lead tutor with 478 logins. The remaining two tutors had a total of 202 and 105 logins respectively. Eleven of the participants have high login records and evidence of active participation ranging from 294 to 96. One of the most active of these was a member of the (late starting) Group 4, with a total of 193 logins. The remaining 8 participants have logins of between 60 and 25, although many in this range were from Group 4. There were a total of 8 female and 10 male participants, supported by 5 male tutors and a female project manager. In terms of the total number of logins, the female participants logged in a total of 1181 times (59.1% of the participant logins) and the male participants logged in 817 times (40.9%). Inclusion of the number of logins from the tutors and the project manager gives total female logins of 2257 (56.3% of all logins) and 1752 male logins (43.7% of all logins). In terms of the total number of postings, the female participants posted a total of 254 messages (66.7% of the participant postings) and the male participants posted 127 messages (33.3%). Inclusion of the number of postings from the tutors and the project manager gives total female postings of 555 (47.1% of all logins) and 623 male postings (52.9% of all logins).

The number of postings maps reasonably well to the ranking order for the total number of logins, with participants who login in frequently also being more active in terms of their total number of postings. Once again the project manager and the tutors contributed the greatest number of postings. Analysis of the discussion boards indicated that the majority of these postings were concerned with administrative details about the course, along with some degree of help/support on technical details. The project manager posted 301 messages and the five tutors posted 194, 154, 87, 48, 13 respectively, the order of activity mirroring the ranking in terms of total logins. One participant was particularly active, posting double the number of messages (163) of any of the other participants. A cluster of three postings followed this between 86 and 88, again by participants who had high login values. The postings then tailed from 65 down to 14, again mainly echoing the login ranking, with one exception. The high login of 193 from the Group 4 participant did not link to a high number of postings, which at 26 was towards the lower end of activity.

Each module was supported by a set of learning materials and an online forum. As each module was completed the discussions were archived and the space cleared for the start of the new module. There were a total of 24 fora. Two online reflection fora (‘Reflections for trainees’ and ‘Reflections for supervisors’) have already been discussed. Three fora (‘Module 1 archive’, ‘Module 2 archive’ and ‘Module 3 archive’) contain only one message each and are not discussed further. Likewise ‘Module 4 assessment conference’, ‘House rules’, ‘Web zone’ and ‘Link back to educational site’ are essentially specialised administrative or help and support fora dealing with particular topics and are not discussed further. The main fora fall into four categories: the group discussion fora (which consists of the plenary forum and the 11 group discussion fora), the course development discussions (within the ‘supervisors forum’), a socialising forum (‘coffee room’) and a dissemination area (‘notice board’). The following discussion will concentrate on these 15 fora. Discussion activities within these 15 fora fall into five main types: Administration, Task setting, Socialising, Help and support, and Feedback and discussion. These categories were developed from analysis of the emergent themes arising from the questionnaires and the online reflection fora, along with analysis of the content within the discussion boards. Further results and findings will be discussed in more detail at the conference presentation.

## Conclusion

There were a number of important findings and recommendations from the evaluation. A selection of key findings is highlighted here and will be elaborated upon in the conference presentation.

Overall the participants enjoyed the course, found it useful and unanimously said that they would use this form of learning again, however a key issue for all participants was a lack of time to dedicate to the programme. A consistent theme, which emerges from the evaluation, is the sense of the development of an online community and participants appeared to enjoy the course particularly because it gave them the opportunity to network and discuss views with colleagues. Participants felt that the schedule of the overall programme was too tight and that not enough time was available for discussing each of the modules. In addition, it would have been helpful if there had been a greater break in between modules. The value and importance of the online discussions came out consistently as one of the best aspects of the course. Furthermore the role of tutors in leading group discussions and guiding modules was critical to the success of the course. Participants stated a preference for those modules where the supervision was good and it was evident that there was a direct link between this, participant satisfaction and enjoyment of the course.

## References

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