

Web-based Learning: Size Matters

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Abstract

This paper considers some issues related to a web-based vocational course in management for small businesses. Aspects of *size* are examined: the size of the working groups, the size of the course units and the scale of the support infrastructure needed. These aspects appear to have had an important bearing upon the targeting of course materials to clients and upon client retention. On the basis of this experience plans are outlined which aim to improve the effectiveness of client-client and tutor-client communication and to make the course attractive and useful to a wider market.

Background

The course, which is marketed as *Business First*, is offered by University College Scarborough, a small higher education institution situated on the east coast of northern England. The course is delivered by flexible learning via a website and supplemented by face-to-face activities. Start-up costs were underwritten by the European Social Fund 5B Programme, making it possible for the College to set up a dedicated website and for each course client to be loaned a computer with Internet access. The content of the course is derived from six modules of the College's BA degree in Business Management and is offered as a Higher Education Certificate in Management validated by the University of York. Each of the course units is led by an academic unit tutor and supported by educational, technical and administrative staff. The first cohort of 36 clients entered in February 1999 and will complete the course in December 2000.

Course client profile and induction

Typically, the clients are owner-managers of small companies in the Scarborough district. Their ages span 24 to 63 years, in a fairly symmetric distribution, and almost three-quarters of the group is male. An examination of clients' 'business cards' posted on the course website indicates that the stated reason for taking the course was predominantly career-oriented: clients hoped to develop management skills in order to make their company more successful, and/or to gain a management qualification as a stepping-stone to further advancement. Data from clients' course registration forms show that although a third claimed educational qualifications equivalent to (English school certificate) Advanced Level or above, many had left school at the earliest opportunity with minimal qualifications.

As the client group included 'rusty learners', there was a need for preparation in study methods. The book *Manager's Good Study Guide* (Giles, 1994), produced for students of the British Open University's Open Business School, was issued to all clients at the start of the course. A 'guide to the Guide' was produced, and sections in the guide were related to the first unit of the course. The ability to use a computer and to access the course website was essential, so clients' information and communication technology (ICT) skills were profiled by questionnaire some weeks before the start of the course. Experience ranged from absolute beginners who had scarcely touched a computer before, to a computer programmer. While less than a quarter of the group could be judged as adequately competent at that time to cope with the ICT requirements of the course, about a third were identified as being in need of careful induction and support. Prior to the start of the course a programme of evening ICT workshops was offered at the College. The workshops, which were well attended, covered basic computer skills and an introduction to the course website, including how to use electronic mail, computer conferencing and World Wide Web resources. In the final session clients collected their laptop computers, receiving instruction in their operation and maintenance.

Initial delivery methods

Each course unit, spanning twelve weeks, begins with an evening launch session at the College. This presents an overview of the unit content and provides important face-to-face contact between staff and clients. After this launch the main work of the unit is undertaken via the course website.

Specially developed software for the website employs Microsoft *Outlook* as a communication engine accessed through an HTML web page 'front-end'. The decision not to buy in an existing web course authoring system was made after extensive examination of available products. In view of clients' lack of ICT experience it was important for the interface to be very simple to operate, especially for the computer conferencing application, where user disorientation can occur in mature conferences (Collins & Bostock, 1993). In addition, it was judged important to retain a high degree of control and flexibility over the development environment so that course materials might more easily be adapted for future application elsewhere. A navigation toolbar on the left of the page provides access to the following functions.



- Home page – course noticeboard
- Chat room – synchronous text communication
- Contacts – an address book of clients and staff with links to individuals' business cards and photographs
- E-mail – a full Internet electronic mail system supporting multiple file attachments
- Discussion groups – asynchronous computer conferencing, supporting threaded discussions and multiple file attachments
- Tasks – the course content organised under six units
- Resources – links to course information, website resources, multiple-choice tests, *etc*
- Help – frequently asked questions and other support.

The course units were made available in a timed sequence in order for clients to move as a group from unit to unit. Initially, the units were structured according to the internal logic of the academic discipline. The use of management textbooks, CD-ROMs and business education websites formed an important part of the course activities – as they do in the undergraduate modules from which the units had been derived. The first unit of the course (*Management in Practice*) – covering organisational behaviour and management styles – is discursive in nature and much reliance was placed upon discussion groups as a forum for clients to relate management theories to their individual business situations. The Tasks area of the first unit was predominantly text-based, with some minor use of PowerPoint-style slide presentations supported by voice commentary.

Problems encountered

There was a high level of client activity at the start of the first unit. The administrative and technical support staff fielded many technical queries and the unit tutor found herself spending up to an hour a day responding to e-mail and computer conference postings. In order to reduce the likelihood of clients becoming overwhelmed by 'information overload' (Nixon & Salmon, 1996), conferencing was being undertaken in smaller groups. After this initial phase – which lasted about a month – it was noted that the number of clients making regular log-ons to the website was falling and some group conferences were losing momentum as they were reduced to only two or three active members. Within a few weeks some clients had withdrawn from the course and others, while making occasional connection, made no contributions to group activity.

In retrospect, it seems that too great a reliance was placed upon computer conferencing as a learning medium. Its value has been extolled in distance education literature (*e.g.* Harasim, 1989; McLellan, 1997; Sherry & Wilson, 1997) to an extent which might be described as uncritical. In contrast, McCabe (1998) notes a tendency in such literature to confuse the potential of computer conferencing as a *medium* with it as an educational *approach*. Klemm & Snell (1996) go further, in being heavily critical of "*slavish*

acceptance of the threaded-discussion paradigm", which they claim results in relatively shallow 'discussion'. Perhaps another factor was the suitability of this medium to the client group. Textual exchange via computer was not a form of communication with which many were familiar, and some clients might have been reluctant to 'expose' their perceived limitations in written English in such a public way.

The problem of client retention is central to distance learning systems and the quality of course management and support has been the focus for wide discussion (Freeman, 1997; Rowntree, 1999b). The model of student learning presented by Morgan (1995) emphasises the central place of the learner's orientation to education as the major holistic motivation to study, and this can be seen as the key to success – or failure – in distance learning. Kember (1995, in Moore & Kearsley, 1996, p.209) postulates a model for the progress of adult learners in open and distance education courses which focuses upon the success with which students are able to integrate academic study requirements with competing social, domestic and workplace demands. Students with favourable backgrounds and situations tend to proceed on a positive track which can diverge markedly from that of others, whose difficulties with the academic requirements and problems in resolving competing demands may cause them to fail or withdraw. This issue of existing educational background as a predictor of success in distance learning has also been identified by Coggins (1989, in Moore & Kearsley, 1996, p.161) and Billings (1989, *ibid*) presents a model for student completion of correspondence courses in which dropout is seen to be the result of an accumulation of educational, attitudinal and environmental causes.

An analysis of exit interviews with clients who had left the course indicated that another contributory factor was its academic orientation. Clients who had joined the programme hoping to pick up 'quick fixes' to apply in their own businesses appeared to have been put off by the textbooks and the text-intensive website with its reliance on conferencing. The clients who remained were more likely to have undertaken tertiary education and to have acquired post-school qualifications. Some younger clients see the award of the Certificate in Management as a career qualification and so are motivated to succeed. A central problem for the course appears to be the tension between the requirement for 'academic rigour' entailed by university validation – which pulls in what Rowntree (1999a, pp.39-40) calls a *dissemination* direction – and the objective to make the course a catalyst for change and real business development for the clients – which is characteristic of Rowntree's *development* model, seeking first to address learners' needs.

Improvements to course content and structure

Having identified the problem and its likely causes, the course team are currently in the process of implementing a number of potential solutions.

The appearance and academic orientation of the course content is being transformed. Effort has been made to redesign the latest unit of the course from the perspective of the learner, rather than in a form determined by the subject matter, and to make course tasks more problem-based and realistically situated (Teles & Collings, 1997). The work of this unit (*Human Resource Management*) is built around a simulation of a small company, and on the website is a greater use of interactive graphics and audio commentaries. Textbooks are now used as support reading rather than as core work. Computer conferencing has a more utilitarian focus than before and small group conferences have been abandoned in favour of whole-group activities. The results to date have been encouraging, and clients have welcomed these changes.

In addition to a reorientation of content the overall structure is undergoing change. The six units of the course were derived from undergraduate modules, and while such a structure is appropriate for conventional campus-based delivery, it is proving too inflexible for the new purpose. Rather than present the course in six large blocks in a strict order with start and finish dates, the course in future will be offered in smaller blocks, with greater client choice over order and timing and the option of selecting from a larger pool of content. This move to *Learning Objects* is taking place elsewhere and is a relatively recent development, but one which seems likely to have major effects on the emerging market for online learning (Shepherd, 2000). The new-style course will be launched shortly, with a view to recruiting a far larger intake. The implications of this are considerable, not only for course content but also for the provision of client support.

Improvements to client support

In the early part of the course client contact was channelled through an administrative assistant, who routed technical help to the website developer and academic guidance to the unit tutor; while the size of the client group has fallen, this level of support has proved adequate. The new course, with a larger number of clients – all at different stages with a large number of learning objects – will not be so easy to manage. The two types of client needs, for:

- administrative and technical help
- academic support

will be addressed separately.

The provision of administrative and technical help will be partly automated using improved client tracking software. The existing system uses an online form for staff to register the details of their contact with clients.

What is now being developed is a relational database to include:

- details of clients and their computers
- course registration and fees payment records
- learning objects progress and assessment records
- a log of all client contacts, including attendance at face-to-face meetings and events
- various questionnaire and feedback returns.

This client support database can then be used as a comprehensive management information system for the course.

Academic support for distance learners can take a variety of forms. Freeman (1997, p.49) identifies five principal functions:

- as a subject expert
- as a gateway to other resources
- to give feedback on progress
- to encourage/assist with personal problems
- to assess learners.

Provision for the new course will be made at two levels. Graduate teaching assistants (with recent degrees in business management) will provide operational level support, maintaining regular contact with clients and fielding generic queries. The full-time academic staff leading the existing course units will adopt a quality oversight role, making more occasional contact but employing their specialist expertise and directing the assessment process. The teaching assistants will undergo an induction programme to fit them to their role.

Conclusion

In web-based learning, size matters! From the experience of the *Business First* course, there appear to be optimum values for the size of the learning groups, the size of the course units and the scale of the infrastructure needed to support even a modest number of learners. Web-based learning is not an easy option, for the learners or for the providers. For the learners, it requires high levels of commitment and it suits some people far less well than others. For the providers, it is *not* enough to 'post your lecture notes to the web', as the retention of those learners poses complex problems for which there are no simple solutions.

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