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## Reflections on E-learning: Pedagogy and Practice in the Corporate Sector

WPS044

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**Abstract**

The majority of the articles on e-learning inform organisations on its perceived benefits of flexibility, cost and breadth of coverage. The disadvantages are largely ignored. The pedagogical debate on e-learning concentrates on the delivery of e-learning within a traditional educational forum and does not examine trends within a corporate environment. This study reflects on the directions and experiences of organisations in the FTSE 250 that are implementing e-learning. It concludes that the advantages of an online pedagogy are not fully exploited due to limitations in technology and other strategic priorities. In addition, a number of lessons have been learned by the pioneers of corporate e-learning, including the evolutionary nature of the programmes and the need to create 'organisational readiness'. Further research is essential to consider all stakeholders' experiences of e-learning, and the learner's voice is significant by its absence in the debate.

**Keywords**

**Introduction**

McLeavy (2000) argues for a significant review of all educational models to consider whether they are adequate for the 21st Century. He considers that the electronic networks of education and training will provide access to continuous learning for a much wider constituency than currently has access to traditional methods. Indeed, the expectations placed on e-learning and its part in what has been termed 'the learning revolution' have been widely reported in the press and media. Those working in Higher Education will be familiar with the on-going changes and developments in the sector, some more successful than others. Elsewhere the part played by e-learning in schools, workplaces and the home is being driven by many projects with high-sounding ideals and objectives. It is against this background of the 'explosion of e-learning' that this study took place.

An initial review showed how little the literature examines implications and directions of e-learning in the corporate environment. Indeed, most of the e-learning literature focused either on pedagogical issues or practical issues of delivering e-learning. So in reviewing e-learning within the literature, we found it useful first to pose the question, what is the purpose or purposes of that literature? With practitioner-focussed literature the main purpose would seem to be to update and inform: to provide busy practitioners with information that will update knowledge, keep them abreast of developments at theoretical and organisational levels, to enable informed decisions and to provide signposts to deeper understanding and knowledge, should that become necessary. That deeper understanding and knowledge is largely provided by the academic-focussed literature that tends to debate the complex issues and conceptual bases, and report the outcomes and implications of research initiatives. However, the term 'e-learning' implies much more than just the delivery of training to a wider audience.

The emphasis on learning connotes an altogether more important outcome, that of behavioural change and the development of performance through the transfer of knowledge. This has evolved through story-telling, writing and dissemination of printed material; however, electronic dissemination now requires not only the ability to read and write, but the technical competence and network depth to create a

learning community in cyberspace (Horwath, 1999). It is important to consider that e-learning may provide the capability to combine these elements of story-telling, reading, writing and even acting, into a unique and flexible dissemination mechanism. Consequently, serious consideration has to be given to the pedagogical structure of e-learning. Thus, the exploitation of this technical dimension will require consideration both of the possibilities of e-learning and of what is technically possible. The first is limited only by the imagination. The latter could be a significant restriction in the pedagogy of online or other electronic delivered learning.

Our particular interest is in the growth, practice and implications of e-learning in the corporate environment. By investigating the experiences of those implementing e-learning, our aim is to inform the debate on e-learning and to unpick some of the rhetoric and reality of corporate e-learning programmes. We intend to highlight emergent issues in e-learning and to raise questions that need further research, the importance of which cannot be underestimated; if e-learning does continue to grow and become a predominant source of organisational learning, its effective use will have a major impact on international economies.

**Reviewing E-learning in Practice**

Much of the content of the available literature concentrates on the advantages of e-learning. These are based around two main themes—the cost advantages, and flexibility in delivery. The cost advantages centre on reduced training time, the costs saved in travel and time away from the job and the ability of e-learning to serve large numbers at one time, or over time, with relatively little additional cost (Schriver and Giles, 1999; Warner, 1999; Koprowski, 2000). In addition the relationship of e-learning and knowledge management is increasingly seen as contributing to the competitive edge of the organisation (Swanson, 2001). This raises expectations in organisations that introduce e-learning in terms of both the extent of the return on investment (ROI), and the period over which the payback will take place. A study of US businesses by Swanson (2001) indicates that 46% of those surveyed are already seeing a return on their investment, whilst 94% are expecting to see returns or further returns within two years. Hammond (2001) also notes that 80% of Fortune 500 companies are using or intending to use e-learning, and expect a significant ROI.

Discussions on flexibility tend to focus on two main issues: flexibility in delivery, and flexibility in the pace and distribution of learning. The flexibility of delivery offers organisations the ability to deliver consistent learning experiences, independent of time and place. This offers great advantages to a geographically-dispersed workforce, those working non-standard hours and those employees who work from a home base. It also enables learning to be offered easily to those beyond the formal boundaries of the organisation at relatively low cost; this would include customers, suppliers and contractors (Galaghan, 2000). Flexibility in the pace of learning is represented largely as an advantage to the learner in that they can learn at a time and pace to suit their own capability and life circumstances, and enable their continued marketability through lifelong learning (Sandelands and Wills, 1996; Caudron, 1999).

These undoubted advantages tend to be presented without any discussion of possible disadvantages or problems and under the banner of urging trainers and organisations to join the bandwagon, or be left behind (Rana, 2001; Sloman, 2001; Wilson, 1999). The dearth of academic literature available on this subject means that a reasoned debate is lacking, particularly in the areas of quality of content, problems with the technology, learner support and evaluation. There are, however, some authors who do sound a note of caution. Emurian (2001) questions what might be effectively delivered via e-learning and Angel (2000) suggests that whilst e-learning is good for communicating facts, areas of complexity and feedback might be better left to human trainers. Dobbs (2000) maintains that much of the 'off the shelf' material available is poor and lacking in creativity, whilst Warner (1999) emphasises the importance of tailor-made materials and on-line help, but acknowledges their cost. This is a significant point that needs to be addressed in the payback debate, and the balance of quality versus the true cost of materials and their support is one that would benefit from further research. It is, however, an area of great complexity as the range of options and capabilities available does not lend itself easily to definition, and this complexity is only likely to increase as technology advances (Barron, 1999).

With regard to the learning experience, Dringus (2000) warns that elearners may be unable to sustain their momentum unless they have the skills for self-directed learning and technology management, they are self motivated, and they are prepared

for isolation. Indeed, Horwath (1999) recorded anxiety in novice users when the technology failed to respond within 15 seconds. This theme is addressed by Newmann and Smith (1999), who use Lave and Wenger's (1991) concept, 'communities of practice', to note the significance of a suitable context of learning, and the danger of the learner being ignored in the enthusiasm for technology. This point surfaces again in respect to evaluation, and much of the evaluation of e-learning that does take place concentrates on uptake and satisfaction with the process, rather than the comparative effectiveness of on line and traditional courses (Horwath, 1999). The exceptions to this include Furnell et al (1999) and Leins and Orton (2000) who reiterate all of the above concerns and take a stakeholder perspective, and Athanasou (1999) who urges the need for evaluation and offers a six-step framework, which includes a range of qualitative issues as well as cost. Hartley (2000) concentrates on the impact of e-learning on the role and skills of the trainer.

These issues seem obvious on reflection, but as Dobbs (2000) and O'Reilly (2000) point out, many trainers responsible for developing and implementing e-learning strategies are struggling within a new field. They possess some of the skills required, but lack experience and the 'know how' of others, particularly the technical skills. Here again the literature proves less useful than it could in terms of providing guidance across the broad spectrum of issues. Given that the majority of the literature tends to support a cost-driven and flexibility agenda, which reinforces a particular discourse on e-learning, the new entrant to the field has to piece together the key issues from a range of sources. Moreover, the focus on cost and flexibility obscures the focus on the technical possibilities of creating stimulating learning environments—and does not address the issue of providing a unique pedagogy of learning.

**The Pedagogical Context for E-learning**

Using Moore's (1977) concept of transactional distance, Peters (2001) considers the implications of technological change on the pedagogy of e-learning. He argues that traditional distance learning material is highly structured and rationalised, with dialogue between the tutor and learner created through the text in order to construct a learning space or degree of interaction. Thus, in order to encourage effective

learning, Peters argues that distance-learning material requires specific techniques to increase the level of dialogue and to reduce the transactional distance between the tutor and the student. Peters adds in a dimension of autonomy to this concept. He argues that the move towards flexibility and independence, created through distance learning, does not address learning centred on the needs, objectives, strategies, pace and learning styles of the student. This is becoming an increasing part of learning in organisations through the introduction of personal development plans and self-directed learning programmes. Thus, he sees an inherent tension between distance learning and the ability of students to assume responsibility for the rhythm of their study. Autonomy requires learning through activities, reflection and reading or discussions that help to crystallise ideas and develop personal learning. He suggests that integrated communication systems may add a new dimension to the concept of transactional distance by allowing an increase in dialogue, the reduction of structure and the increase of autonomy, creating new pedagogical structures through digital and online media. The key will be to weave the technology and the material together to create the elements of interaction and links with tutors and other learners (a community of practice), and to encourage autonomy by including the flexibility to explore alternative pathways of learning. While both the individual and social aspects of learning are included within this pedagogical model, Hung and Nichani (2001) argue that it will take significant technological capability to allow an increasing level of interactivity, in order to create the dialogue, but also to allow the personalisation of the experience. One of the questions this raises is whether this can be done at the same time as providing breadth of coverage and economies of scale that will be required within corporate e-learning programmes.

This pedagogical model seems to take a social constructionist perspective where the learning is not just about the inputs, but where the social context of learning becomes an important factor. Indeed, much of the pedagogical debate on e-learning is centred on the importance of the social aspect of learning (see, for example, Maule, 1997; Sandelands and Wills, 1996; Haythornthwaite, 2000; Salmon, 2000; Good, 2001). Social interaction, it is argued, can be mimicked through online chat and discussion forums. Moreover, Haythornthwaite (2000) argues that a large portion of the social aspects of traditional learning occur though weak social relations. Thus, if the depth of social relationship is not necessarily an important factor, weak social relationships

can be established through electronic communication to create a social relationship of support important to the maintenance of motivation and quality of learning. However, this presupposes that students will use these discussion forums to establish relationships, but other studies (Grifiths et al, 1999), have shown that students only accessed online courses to download material in order to read it offline. While this may be as a result of poor programme design, it does highlight the fact that the students will manipulate learning facilities to meet their own needs, and the provision of discussion groups does not ensure participation, or prevent isolation.

To overcome some of these problems, 'blended learning solutions', where e-learning is closely integrated with more traditional methods to create a coherent training package, have been suggested (Sandelands and Wills, 1996). This provides traditional social interaction forums, and uses technology to create links to repositories of information that can be used to share knowledge and to learn. Salmon (2000) argues that the tutor's role in e-learning is extremely important, but fundamentally different to traditional learning. It requires a completely different range of skills to e-mentor, which cannot be left to the online content of the material. This seems to support Maule's (1997) position. He argues that online learning should not be a replacement of traditional learning, but a supplement to it; online learning can provide the opportunity to personalise the experience.

This preceding pedagogical discussion is primarily centred on the delivery of e-learning within more traditional educational establishments, and the analysis of pedagogy of e-learning within the corporate environment is significant by its absence. While Oblinger (2001) argues that e-learning businesses and the market will provide education with insights into creating greater efficiencies, as well as practices that ensure quality learning experiences, this presupposes that the market is driven by organisations that demand quality over other aspects such as cost and economies of scale. This is not necessarily the experience of other market-based products, and it is difficult to see why it should be any different in e-learning. Indeed, it is interesting to note that Emurian (2001) suggests that e-learning lends itself to knowledge domains that are clear, precise and non-controversial, and that the pedagogy of e-learning must be given to a more rational approach. This certainly fits with the notion of providing breadth of delivery through online and e-learning media that McLeavy

(2000) considers an advantage of e-learning. It does not, however, address the key factors of e-learning pedagogy identified above, which Jung and Rha (2000) have argued are instructional design (in terms of material and structure), levels of social interaction and the personal issues of students. Thus, successful e-learning in the corporate environment should address these key issues of pedagogy if it is to create an alternative and effective learning environment. However, while technology may be capable of achieving this, utilization of technology is shaped by social factors, including the objectives and priorities of those implementing e-learning systems.

**Gathering Data – Methodological Issues**

For the purposes of this study, e-learning is taken to mean any form of training where the learning package is delivered electronically, including television, audio and video-tapes, CD ROMs and on internets or intranets. The delivery of training solely through interconnected PCs—either over internets or intranets—is defined as web-based learning.

The initial data capture was through a postal questionnaire to FTSE 250 companies. The response rate for the questionnaire was 13.6%. Although the absolute number of responses would have provided the opportunity to conduct non-parametric tests, due to the categorical sub-divisions included in the survey, the absolute numbers of responses did not provide a robust sample. As a result, the data was not used for statistical analysis. However, the data was collated and analysed for emergent trends and was used to inform a topic list for semi-structured interviews. Since the companies contacted were FTSE250 companies (a significant portion of whom are organised internationally), the survey also gives an indication of how the larger corporations are approaching the issues of e-learning. This approach was considered appropriate since it is likely that the pioneering work in e-learning—particularly web-based learning—will be conducted within those organisations that can allocate sufficient resources to develop the capability. Thus, the approaches or developments within these companies are likely to presage any development within smaller corporations. Consequently, these organisations are an important source of information for the direction and uses of e-learning/web-based learning in the corporate environment.

Ten companies were interviewed. In each case the interviewee was directly responsible for the delivery and development of e-learning strategy within the corporation. The topic list was derived from literature reviews and the questionnaire responses, but the opportunity was taken in interview to explore any areas of interest that were pertinent. The data collected was analysed for emergent themes (Easterby-Smith et al, 1991). As with any discourse—and there appears to be an emergent discourse on the benefits of e-learning—the language and body of knowledge set the boundaries of normalcy that circumscribe the legitimate actions within that domain (Foucault, 1961). Consequently, this predominantly phenomenological approach was considered appropriate since the attitudes, experiences and discourses of the personnel involved in *leading* corporate e-learning strategy provide the context for the implementation of e-learning for those that follow.

The sample companies have an international presence in Financial Services, Pharmaceuticals, Telecommunications, Chemicals Manufacture, Engineering and Metals Manufacturing, Aircraft Manufacturing, Electronics, and Retail. Thus, their experiences and motivations in the development and delivery of e-learning provided useful data to consider the implications and imperatives of e-learning within the corporate sector.

**Corporate Directions, Imperatives and Evaluation of e-learning**

*Survey Data*

The most extensive use of e-learning appeared to be CD ROMs (74%), closely followed by web-based learning (70%). What was particularly significant was that the trend for the future of those involved in e-learning was to move towards implementing or expanding both an e-learning and web-based learning capability (91%). The comparison between current levels and future levels of electronic learning delivery can be seen in Figures 1 and 2, and indicates that within the corporate environment, the expansion of e-learning is set to continue.
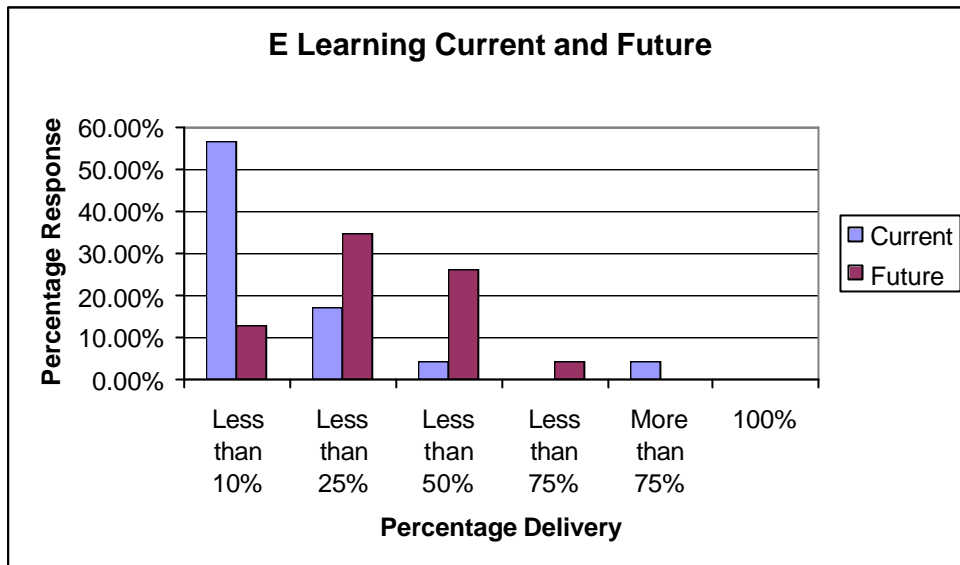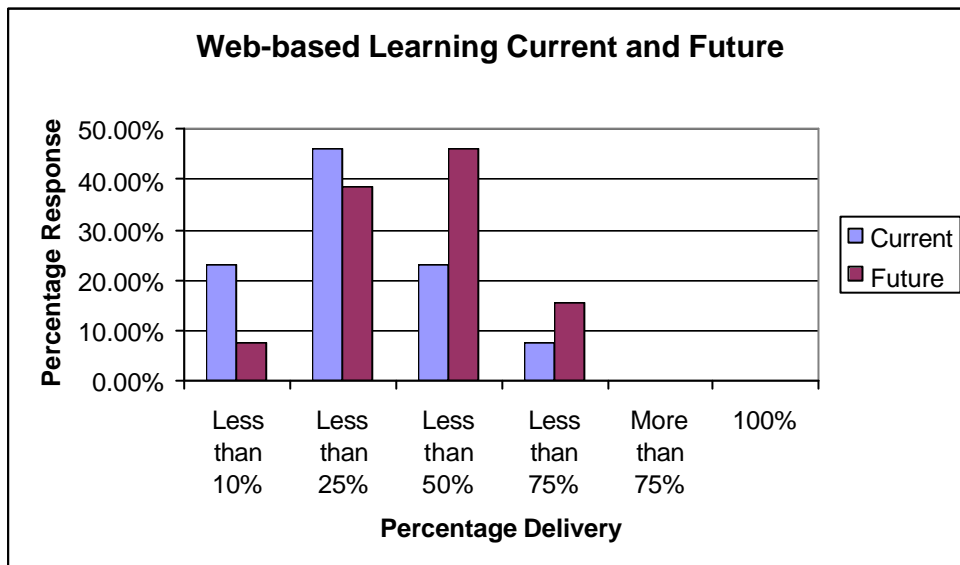
**Figure 1**



**Figure 2**

It was notable that although some of the e-learning packages were bespoke, in the majority of companies e-learning was bought 'off the shelf' (52%), with only 26% producing material internally. During the conduct of the training, 34% said that they provided no support, and only 30% said they provided face-to-face support, although it was not possible to infer the quality and depth of that interaction and whether this constituted any form of 'blended learning'. This was investigated further during interview, with particular regard to the relationship to web-based learning.

Evaluation of progress on e-learning packages appears to be mainly through self-test (48%) and computer-marked tests (43%). As companies migrated to web-based learning, the use of computer tests and self-assessment increased significantly to 92% and 70% respectively. However, it was not clear if this data was captured in any systematic way to evaluate training outcomes. The monitoring of the quality of training was provided though offline feedback (77%), course test results (62%), and performance improvement (62%). The content of learning packages tended to be focused on industry-specific skills, although how this fits with the trend to 'off the shelf' packages is not clear. Significantly, only 8% used the web-based packages for IT skills and PC application training. A significant portion claimed to use web-based learning for general personal skills and management development (46% and 54% respectively) and for company-wide courses such as induction and health and safety (47%).

Finally, and perhaps most interesting, were the perceived benefits of e-learning and web-based learning (Figure 3). The data has been grouped in benefits that fit into 4 main themes: flexibility, cost, self-development and the quality of the learning experience. From the data it can be seen that easier access and availability are seen as strong contenders for the benefits of both e-learning and web-based learning. However, it is important to note the shift towards self-development, which may be reflective of the development of learning theories and pedagogies, or evidence of a shift in the psychological contract. In terms of cost, benefits are expected through both cheaper delivery and reduced time away from work. Unfortunately, the quality of the learning experiences is not expected to be a significant benefit by the respondents. All of these issues are themes that were explored further in interview.
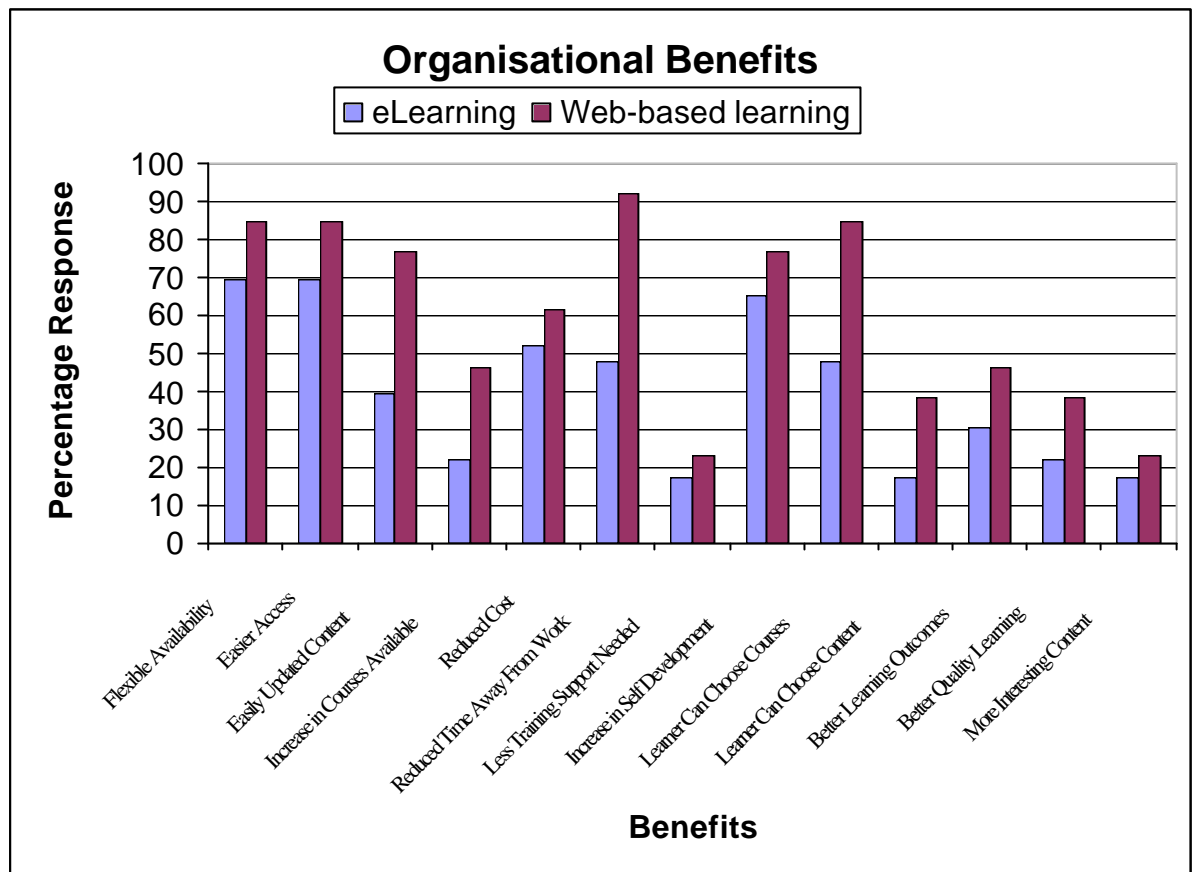
**Figure 3**

*Interview Data*

The scope of e-learning is continuing to grow in all of the companies, with a concomitant reduction in the amount of training delivered by more traditional means. While the coverage of e-learning does not reach every employee, the aim is certainly to move in that direction. What is clear is that all companies, even those with fairly extensive web-based and other e-learning systems, consider that they are at the beginning of an evolving project to 'spread the word' and provide the breadth and depth of e-learning within their organisations. However, within almost all organisations, progress is considered to be slower than they would desire, with time, costs and technological capability providing significant barriers to developing e-learning capability, and particularly web-based material. For example,

> *"It, [e-learning] involves a considerable investment in both time and money..."*

> *"You need to take a long term view of the investment..."*

Organisational changes and other business priorities often mean that the 'roll out' is disrupted by more transformational events such as mergers or acquisitions. In these cases priorities and energies were often rapidly shifted to deal with immediate and pressing concerns. One key to success was consistent and vocal support from top management:

> *"If senior management see the benefits…development and implementation would be easier."*

Where this was given, not surprisingly, the pace of change was quicker. One organisation stated that it was company policy to use web-based learning as its primary delivery mechanism, and 99% of its training was now being delivered online. While the resistance to change and cultural resistance to e-learning featured significantly as barriers, this was not generally felt to be from the training community or employees, but more from senior and middle management:

> *"The more senior the grade of employee, the less likely they are to want to accept e-learning material…"*

> *"The cultural barrier and the legacy of prior experience were particularly difficult to overcome."*

> *"One of the biggest challenges is to get people to understand how to " e- learn" and…create episodic learning…"*

The single biggest barrier, however, was considered to be the technological capacity to be able to move to web-based learning. Available bandwidth and legacy systems made the migration expensive in both time and cost. Where success had been achieved, this was done when a clear business case could be made. Investment was generally on a zero cost basis, for example through redundancies in training staff being used to offset the development and growth of e-learning.

While the shift to e-learning seems to be gathering momentum, the strategic role of e-learning within these organisations was less clear. There are attempts, and certainly the will, to link e-learning to business strategy, but this mainly seems to be through the support of business-wide change projects. Certainly, it appears that this is where the majority of bespoke material is provided, as discrete packages of learning to support project delivery. One organisation has taken significant steps to link the e-

learning framework to a comprehensive knowledge management system. This system is still in testing, but is expected to be company-wide by 2003. Other organisations indicated that an objective was to link their e-learning systems to corporate strategy, but how this was to be done was unclear, with some organisations noting that they did not actually have a formal learning strategy. Nevertheless, there was an indication that a majority of organisations were linking training and e-learning to other HRM policies through personal development plans, performance management systems and the evaluation of outcomes. Indeed, there was an almost universal attempt to identify key organisational and business competences and provide learning packages that directly supported them. Several companies noted that their approach to e-learning was "*needs driven*," rather than a "*shopping trolley approach*." However, given the project focus of bespoke material noted above, it seemed clear that 'off the shelf' packages for e-learning are used to support generic competence maps. Indeed, where e-learning was provided to deliver needs-derived learning, it appeared that this was solely through an analysis of needs as part of project definition and delivery. Nevertheless, one company was particularly sensitive to the international reach of its web-based learning delivery and had taken care to ensure that the material was contextualised with 'cultural nuances'. While there was much talk of 'blended learning solutions', when probed this appeared to mean that not all training is delivered through e-learning. Only two examples were provided where e-learning was integrated with traditional learning and offline support, and this was only for one course in each company. Moreover, where "blended solutions" were adopted, attention was required to "educate project managers who request the training and the involvement of trainers in on-line mentoring…"

There was a trend towards in-house developed material, but again this appeared to be more closely linked to specific projects or company-specific training, like induction material or new products. With regard to the types of training being delivered through e-learning material, there was a focus on generic managerial soft skills training and competence focus, mirroring our survey findings. There was also a significant portion of training focused on IT skills, but this appeared to be primarily in the business and finance services sector. In addition, and again in the business and finance services sector, e-learning was used to update and evaluate professional skills, and to disseminate information on products to sales staff.

Thus, e-learning is used for a wide variety of training solutions, but is generally 'off the shelf', in self-contained packages to address a specific and discrete training requirement. This fits with the general benefits considered to accrue from e-learning, which are clearly focused on consistent, large scale delivery. Economies of scale and the provision of learning material at the workplace are considered to contribute significantly to the return on investment. Indeed, it is interesting to note that the financial business case for e-learning featured in almost all interviews as a primary driver for the migration to electronic systems, with one interviewee commenting: "we had to make savings to justify expenditure…this hampered the speed and effectiveness of e-learning solutions."

The other great benefits were seen as the flexibility of e-learning and the possibility of using the systems, and particularly web-based learning, to monitor, record and audit training undertaken. However, none of the organisations interviewed had comprehensive learning management systems to provide this data automatically, although some of the companies who were more advanced in their e-learning projects had partial systems and intended to migrate to more comprehensive data collection. Currently, the majority of data collected was on the number of 'hits' on the e-learning pages, but monitoring course completion and success was left to the individual line managers through performance review and personal development plans. In terms of the major themes taken from the survey data—flexibility, cost, self development and the quality of the learning experience—the focus is clearly on the first two, with the flexibility of delivery and personal development plans indicating the shift towards self development. However, the quality of the learning experience during e-learning is significant by its absence from most of the discussions, the exception being frustration with system problems and difficulties in downloading information. Whether these are material quality or system problems, the effect was to discourage participation.

Indeed, the technological problems of providing sufficient bandwidth on web-based systems to provide quick and effective interactive learning packages was seen as problematical. Some even considered it a step backwards from more capable CD ROM packages, but felt that this would be solved through technological upgrading. Moreover, it was clear that advice and support for e-learning was primarily through

information on courses available, and discussions with line managers on development priorities and targets. More interactive online support through mentoring or discussion forums was almost universally absent. Additionally, although training was available at the desktop through web-based systems, work pressures and provision of quiet time for training were factors that had to be negotiated at a local level. It was also evident that only two companies had made significant and systematic efforts to understand how the employees reacted to the new learning environment and to address their concerns. Finally, there were a number of context-specific drivers for the migration to e-learning which included a workforce of self-motivated professional staff; external regulatory compliance monitoring; external collaboration with professional institutions; and the outsourcing of training provision.

**Evaluating Corporate Responses to e-learning.**

As noted earlier, the survey evidence must be treated cautiously given the low response rate. Nevertheless, the rich data provided by the interviews lends weight to the initial findings and provides some interesting insights into how larger organisations are approaching e-learning. There would seem to a number of emerging issues relating to the drivers for e-learning and its subsequent implementation and integration within larger organisations. Some of the concerns raised are not dissimilar to those encountered in other sectors, particularly Higher Education. These are considered below and pose some important questions and challenges for e-learning with regard to using it to build and enable competitive capability.

**A cautious approach**

What is clear from both survey and interview evidence is that the scope and coverage of e-learning are generally limited and the notion of e-learning "evolving" is apparent. There is also a strong sense that progress in development and appropriate operationalisation is exceedingly slow. Overall there is a strong indication of caution, even within high-tech firms, and an awareness of the level of investment required, particularly in technical capability. There is a strong suggestion that where pilot projects were undertaken, they were at zero-cost and the prevalence of what might be

considered "risk averse" approaches. Given this factor, the development of sophisticated and rich e-learning systems appears to be significantly slower than expected. Consequently, this has major implications for the ability of organisations to achieve the balance of structure, dialogue and autonomy that Peters (2001) suggests are the major dimensions of online pedagogy. Indeed, the findings echo Vicere's (2000) comments that unless the problems of integration are overcome, e-learning will remain just an information distribution channel and not an experience-based educational process. Given the costs, difficulties and inertia that must be overcome, even in the larger organisations, it is likely that smaller organisations will suffer a similar fate. However, it may be that the larger organisations will conduct the pioneering work, from which others will benefit. Whatever the outcome, these findings resonate with Angel's (2000) words of caution that there may be an over-expectation of what e-learning can deliver. It should not be considered a quick fix to training problems (O'Reilly, 2000).

**How e-learning is being used**

There was a significant lack of bespoke material that was contextually and situationally customised to ensure that the learning experience was "*meaningful and relevant to individuals*". Relevance, as the literature suggests, is likely to be particularly important in contexts where the ability to interact and personalise the learning experience is limited (Haythornwaite, 2001; Hung and Nicahni, 2001). This suggests that the revolutionary approaches to e-learning, much heralded, have failed to materialise, and reinforces Dobbs' (2000) concerns that the vast majority of e-learning material is just repackaged texts and video with little innovation. Moreover, the personalization of learning is touted as one of the major advantages of e-learning. However, the importance of addressing all of the stakeholders and of the personal issues of students seems to have been overlooked in the rush to generate cost efficiencies. The lack of face-to-face tutor support and integrated blended learning packages highlights that the fact that the reality of e-learning is a long way from the pedagogical models proposed by Sandeland and Wills (1996) and Peters (2001). Nevertheless, the use of learning packages on generic and transferable competences, and the link to personal development, indicate a gradual shift towards using e-learning for self-development. This may be reflective of increased awareness of links

between individual and organisational learning. It might also be indicative of a gradual shift in the nature of the psychological contract and increased reliance on individuals taking responsibility for their own learning. Certainly, the provision of e-learning provides opportunities to support CPD of professionals and addresses self-motivated individuals, for example through learning portals (Roffe, 2000), but it is less clear how the shift to learning is being received by the majority.

## Drivers and perceived benefits

The evidence indicated that, as suggested in the literature (Schriver and Giles 1999, Kaprowski, 2000), the key drivers identified were "*accessibility and flexibility of delivery*" and cost, particularly cheaper delivery, reduced travel costs and reduced time away from work. More generally, for some companies the ability to reach wider constituencies—even the most remote employees—was seen as valuable. Perceptions about the potential benefits of e-learning suggested a lack of clarity or emphasis on how e-learning might contribute to increases in bottom line performance. This contrasts sharply with Swanson's (2001) study on US businesses, where it is claimed real ROI is achieved quickly through e-learning investment. Indeed, the directions being taken by the companies tend to reinforce Newmann and Smith's (1999) concerns that the emphasis of e-learning is directed towards technological solutions and potential economic efficiencies rather that putting the learners first.

## Evaluation – of quality and learning

Closely related to the perceived benefits of e-learning is the lack of systematic evaluation. With simplistic evaluation processes focusing on the number of hits on online systems, computer-based tests and reduced costs, the holistic evaluation required to measure real organisational impact is significantly lacking. This is a familiar refrain within the HRD literature, where it is noted that evaluation focuses on easy-to-collect quantitative data. However, given that the investment is significant in time, cost and effort, there is also a need to evaluate validity, viability, reliability and learner satisfaction to provide feedback to designers and to assist in e-learning strategy development (Hicks, 2000). More generally, the evidence suggests that many companies are using e-learning to support specific projects. In this sense e-learning is currently being used to obtain efficiencies and capabilities in a narrow

sense rather than as part of a wider strategic programme to build capability, manage knowledge and obtain competitive advantage. Without systematic and comprehensive evaluation, it is hard to see how e-learning as an HRD strategy can be developed to ensure the delivery of quality human resources so important to organisational strategy.

**The importance of organisational readiness**

Organisational readiness involves a number of aspects, but in particular includes managing the change process and managing technology. The complexity of the change requires managing a number of different interfaces involving, for example, senior managers, suppliers, and potential learners. The evidence suggests that much of the organisational development required to select e-learning systems and to create a receptive climate for e-learning was undertaken by an identified champion within the organisation. Several interviewees argued that timing was consequently crucial. Thus, implementing e-learning requires a comprehensive and effective approach to change management advocated in much of the organisational change literature (for example, Beer et al, 1990; Kotter, 1995). Clearly, early commitment and investment in developing a receptive environment for e-learning and supporting line managers to work with it is critical. Indeed, the findings echo with Dringus's (2000) comments that the distance learning environment is so different and challenging that learners must be prepared for the isolation, electronic interaction and use of technology; the environment requires more self-motivation and self-direction to take advantage of the flexibility offered. The question remains whether the average worker has the qualities to engage and benefit from e-learning.

With regard to technology, evidence indicates that this was perceived to be particularly problematic in any move to web-based learning. The technological capability of organisations did not seem to support the level of interactivity or integration necessary to make e-learning sufficiently different from other distance learning material and to provide increased levels of satisfaction. Indeed, as noted earlier, studies by Horwath (1999) found that students became distracted and anxious if the computer did not quickly. Thus, the learning experience and technological robustness are clearly linked. Moreover, to get the level of virtual interaction that Motiwalla and Tello (2000) highlighted was essential to improved learner

satisfaction, technological capability will be fundamental. This interactivity is crucial to reducing transactional distance and increasing learner autonomy, and further strengthens the case for an evaluation of learner experiences within the corporate environment.

**Conclusions**

The research highlights several lessons that might inform future practice in developing and implementing e-learning into an organisation and poses a number of questions for further research. The current solutions in organisations do not adequately address the pedagogical components of an effective learning experience for e-learning. Indeed, this study echoes the concerns of Clarke and Hermens (2001) that, despite the potential of the technology, it is primarily being used to deliver standardised skills training. Thus, as Barron (1999) argues, the focus for organisations should be on the key issues of interactivity and provider-customer partnerships that produce effective customisation. In addition, a systematic and holistic approach needs to be taken to evaluate the impact of e-learning to include the ethics, objectives, effects and stakeholder interests as well as costs (Athanasou, 1999). Future research needs to consider how e-learning can be experienced by the individual learners, and analyse the outcomes in a more systematic and inclusive manner.

A number of key issues emerged that we feel are important for current organisational practice. In terms of organisational readiness, it is clear that management support is crucial. Focus and drive for initiatives are required at a number of different levels. This relates to a commitment to research appropriate systems and e-learning products, advertising and marketing e-learning within the company, and engaging line management support. The time and costs to introduce e-learning are enormous and technical capability is crucial. Organisational awareness and communication is imperative throughout development and implementation. Once introduced, time, resources and systems are required to ensure that the momentum continues.

In introducing e-learning, companies need to ensure course content is of the highest possible quality. Given that training and learning are considered to be crucial as part of a resource-based perspective in enabling competitive advantage through

developing human capabilities, it is difficult to see how *"off the shelf"* training will deliver the required competitive advantage, since it is the unique nature of the quality of the human resources and interactions that are considered strategic resources.

Choosing an appropriate vehicle and medium for the learning is crucial. Consequently, attention needs to be given to whether e-learning is appropriate. For many organisations' monitoring progress of the learners and the product is difficult, and considerable reliance is placed on the line manager. This is combined with a need to give appropriate time and space for e-learning. Keeping *"on track"* with all the stakeholders, particularly the learners, is important since the credibility of any e-learning initiative can be rapidly undermined in its early stages through the impact of external factors.

Quite apart from the explicit issues highlighted within the evidence, there were also a number of implicit "silent issues" which, in our view, warrant further investigation. There is a strong suggestion of a shift in emphasis reflected in e-learning to the individual taking responsibility for his or her own learning. More work is need here to focus on an analysis of learner needs and learner demands for e-learning, which is currently supply rather than demand driven. There is underlying concern about variability in the quality of learning products amongst users, which would seem to reflect concerns raised in the literature, particularly around the level of interactivity of products. The reality that a considerable amount of learning material is standardised and subsequently not locally sensitive warrants careful review in terms of the expectations of e-learning to make major contributions to organisational learning. Finally, concerns about the level of personal support available both online and offline, to raise the quality of the learning experience and outcomes, highlight the need for on-going research alongside companies to evaluate the impact of e-learning on the various stakeholders.

# References

Athanasou, J. (1999) Framework for Evaluation of Technology Assisted Learning', *Virtual University Journal*, 2, 13-21.

Angel, I. (2000) 'E-learning', CIPD Conference Proceedings, Harrogate, October.

Barron, T. (1999) 'Harnessing Online Learning', *Training and Development,* September, 28-33

Beer, M., Einstat, R., and Spector, B., (1990) 'Why Change Programs Don't Produce Change', *Harvard Business Review*, November-December, 158-66.

Caudron, S. (1999) 'Free Agent Learner', *Training and Development*, August, 27-31.

Clarke, T and Hermens, A. (2001) 'Corporate developments and strategic alliances in e-learning', *Education and Training'*, 43(4), 256-677.

Dringus, L. (2000) 'Towards Active Online Learning: A Dramatic Shift in Perspectives for Learner', *The Internet and Higher Education*, 2(4) 189-95.

Dobbs, K. (2000)What the Online World Needs Now', *Training*, 37, September, 84-94.

Easterby-Smith, M., Thorpe, R., and Lowe, A. (1999) *Management Research: An Introduction*, London, Sage.

Emurian, H. H. (2001) 'The Consequences of e-learning', *Information Resources Management*, 14(2) 3-5.

Foucault, M. (1961) *Madness and Civilization*, London, Tavistock, 1971.

Furnell, S., Evans, M., Phippen, A., and Abu-Rgheff, M. (1999) 'Online Distance Learning: Expectations, Requirements and Barriers', *Virtual University Journal*, 2, 34-48.

Galaghan, P. A. (2000) 'E-learning Revolution', *Training and Development*, 54(12) 25-30.

Grifiths, L., Ashworth, J., and Ward, H. (1999) 'Learning Online: Student Behaviour in a Virtual Campus' *Virtual University Journal*, 2, 76-85.

Good, M. (2001) 'On the Way to Online Pedagogy' in *Teaching and Learning Online*, Stephenson, J. (Ed), London, Kogan Page, 165-74.

Hammond, D. (2001) 'Reality Bytes' *People Management,* 25 January, 26-31.

Hartley, D. (2000) All Aboard the E-learning Train', *Training and Development* (7), pp 37-42.

Haythornthwaite, C. (2000) 'Online Personal Networks: Size, Composition, and Media Use Among Distance Learners', *New Media and Society,* 2(2) 195-226.

Hicks, S. (2000) 'Evaluating Elearning', *Training and Development*, December, 77-79.

Horwath, A. (1999) 'Novice Users' Reaction to a Web Enriched Classroom, Virtual University Journal, 2, 49-57.

Hung D and Nichani M  (2001) 'Constructivism and E-learning: Balancing Between the Individual and Social Levels of Cognition', *Educational Technology*, March – April, 40-44.

Jung, I., and Rha, I. (2000) 'Effectiveness and Cost Effectiveness of Online Education: A Review of the Literature', *Educational Technology*, July- August, 57-61.

Kotter, J., (1995) 'Leading Change: Why Transformation Efforts Fail', *Harvard Business Review*, March-April, 59-67.

Koprowski, G. (2000) 'Online Learning: the Competitive Edge' *Information Week*, August, 124- 128.

Lave, J., and Wenger, E. (1991) *Situated Learning – Legitimate Peripheral Participation*, Cambridge, Cambridge University Press.

Leins, N. J., and Orton, P. (2000) 'The Five attributes of innovative E-learning', *Training and Development*, 54(6), 47-51.

Maule, R. (1997) 'Adult IT Programs: A Discourse on Pedagogy and Strategy on the Internet', *Internet Research: Electronic Networking Applications and Policy*, 7(2), 129-52.

McLennon, W. (2000) Learning Online, *Conspectus*, 46-48.

McAleavy, G. (2000) 'Virtual and Flexible Learning Methods', *Virtual University Journal*, 3, 11-18.

Motiwalla, L., and Tello, S. (2000) 'Distance Learning on the Internet: An Exploratory Study', *Internet & Higher Education*, 2(4), 253-264.

Newmann, A., and Smith, M. (1999) 'How to Create a Virtual Learning Community', *Training and Development,* July, 44-48

Oblinger, D. (2001) 'Will E-business Shape the Future of ODL?' *Open Learning,* 16(1), 9-25.

Peters, O. (2001) *Learning and Teaching in Distance Education,* London, Kogan Page.

O'Reilly, S. (2000) 'Man and Machine in Harmony', *Training,* September.

Rana, E. (2001) Take Initiative on Online Learning, Trainers Urged', *People Management*, 25 January, 14.

Roffe, I. (2000) 'Online Learning, Innovation and Knowledge Management', *Industry and Higher Education* 14(5), 327-39.

Sandelands, E. (2000) 'The Delivery of Action Learning Online: Proactive Learners Systemization and Facilitation', *Virtual University Journal*, 3, 113-20.

Sandelands, E., and Wills, M. (1996) 'Creating Virtual Support for Lifelong Learning', *The Learning Organisation*, 3(5), 26-31.

Schriver, R., and Giles, S. (1999) 'Real ROI Numbers', *Training and Development*, August, 51-52.

Sloman, M. (2001) 'Forewarned is Forearmed', *People Management*, 5 April, 27-33.

Salmon, G. (2000) *E-Moderating: The Key to Teaching and Learning Online*, Kogan Page, London.

Swanson, S. (2001) 'E-learning Branches Out', *Information Week*, February, 42-60.

Vicere, A. (2000) 'Ten Observations on E-learning and Leadership Development', *Human Resource Planning*, 23(4), 34-46.

Warner, J. (1999) 'Look No Classroom—BAE's Virtual University', *Flexible Working,* July, 12-13.

Wilson, J. (1999) 'Internet Training: The time is Now' *HR Focus,* 76(3), 3.