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Supporting e-Learning

E Pollard, R Willison

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Beyond the Screen:
Supporting e-Learning

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Report 425

The Institute for Employment Studies

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Contents

Executive Summary

This report builds on the previous work of IES 'Exploring e-Learning' that, in providing an overview of e-learning, identified the importance of supporting learners in this new learning environment. This new report examines the literature, explores lessons learnt from the use of e-learning in higher education, and uses case studies of organisations who have been putting e-learning into practice to explore how organisations can support individuals through all stages of the e-learning process.

Background

The research is set within an exciting context where:

- models of learning are changing, with knowledge increasingly viewed as something that can be created in, and captured by, communities of learners rather than a discrete body of information to be transferred

- where responsibility for learning is shifting from the organisation to the individual, creating demand to learn beyond one's current role.

In this context, e-learning can not only be used for information provision, performance support and instruction, but for knowledge management.

Importance of support

Organisations need to recognise that supporting learners is important, and cannot be overlooked. This is a key success factor in perhaps all forms of learning whether learning takes place in educational and lifelong contexts or corporate training contexts,

and whether it takes place in a classroom or at a distance using communication technologies. Support ensures learners engage with the opportunities on offer, and have a positive experience. However, the new approach to learning and new technologies require a different approach to support than previously offered under traditional delivery models.

Understanding learners

Individuals interact with e-learning for different purposes and have different levels of experience. They also have different orientations or reasons to learn and learn online, and will have different fears or factors holding them back. Those with little experience of e-learning may not see the need for, or use of, learning online. They may feel too busy to participate and may lack the technical skills involved. These individuals will need different types and levels of support from those who are experienced in learning online, and willing and able to do it. This second group is motivated by a combination of internal factors such as interest and personal devlopment, and visible and positive external factors such as line manager encouragement and career development opportunities. Thus in planning support to initiate e-learning, organisations need to understand their learners – their motivations and motivators, fears and barriers, skills and experience, and attitudes to challenges.

Moving forward

To sustain motivation and engagement with the e-learning process, the learner needs to have a positive 'quality' experience. There are several key elements to this that an organisation needs to take into account when planning support to sustain e-learning. These include: quality content, offering learners a degree of control over their experience and feedback on progress (without feeling overly scrutinised), a quality learning environment that allows time and space to learn, and, above all, human interaction.

Despite initial thoughts to the contrary, e-learning is still dependent on human support. E-learners will still need someone to guide their learning, answer their technical and subject-related queries, and share their learning experience. Organisations can provide this human interaction by blending online activities with

traditional and accepted forms of learning; and by providing access to appropriate experts and fellow learners. Experienced e-learning organisations will be able to develop dedicated support personnel such as tutors, moderators and mentors; and will have a resource bank of experienced e-learners to help promote e-learning and to provide support to other learners

Beyond the screen

As individuals gain more experience of e-learning, and have positive experiences, they will need less support with technical aspects and with the online learning process. Instead they will need support to transfer the learning into the workplace, and support to select further learning opportunities. The organisation needs to provide support in two key ways. Firstly, by fostering a culture that recognises the importance of, and truly values, learning at work and online. This culture must be endorsed at senior levels but transmitted through the organisation by line managers' encouraging learning and providing access to opportunities. Second, the culture must be transmitted through a network of individuals to guide further learning and development, and the use of personal development plans.

Conclusion

E-learning is not a quick fix but instead needs careful implementation to reach its potential. Supporting learners is a key success factor. Support can take many forms and new forms of support are required to cope with learning through different channels and to help with the new approach to learning facilitated by the e-learning technology. This is creating new roles and placing new duties on key staff. These roles and duties include providing subject expertise, time and space for learning, advice on technical matters, guidance on appropriate learning opportunities, and facilitating knowledge creation and sharing. As e-learning provides a tailored learning experience, learners will need a tailored support package.

1. Introduction

1.1 Research background

1.1.1 Aims

In 2001, as part of the commitment to our member organisations, the Institute for Employment Studies published a research report entitled *Exploring e-Learning*. This study provided an overview of e-learning and charted the growth in the use of technology to provide training and learning, mainly in corporate settings. It identified the importance of support in terms of:

- providing appropriate learning environments
- creating a culture where learning at work and learning electronically are valued
- providing technical help and support
- providing personal support through the learning experience
- providing a learning community where learners can interact.

This new report aims to build upon our previous work and explore how organisations can support their e-learners in practice. It will look at how organisations provide a positive learning experience that achieves the goals of the organisation and its learners. In particular it will examine how organisations:

- initiate and encourage e-learning
- support time spent e-learning
- maximise the e-learning experience.

The focus of this report is engaging learners. It is not about supporting an organisation in making the decision to offer e-

learning as part of its training portfolio or in the implementation of e-learning. Instead this report is intended to highlight the importance of supporting learners to organisations using or intending to use e-learning, and to indicate the ways in which support can be provided.

1.1.2 Methodology

Our approach to examining the issue of supporting e-learning involved:

- an examination of the literature
- case studies with organisations displaying good practice
- an exploration of the lessons to be learnt from education and e-learning providers.

Literature

We have explored the wider literature on e-learning and the literature focusing on supporting e-learning. The latter has tended to be linked with educational settings rather than corporate settings, reflecting the fact that research on supporting e-learning is still in its infancy. A list of the material examined is provided in the bibliography at the end of this report.

Case Studies

A key element of the research has been case studies of organisations that have been putting e-learning into practice. These included a combination of:

- interviews with those responsible for e-learning strategy, development and deployment within the organisation to gain an understanding of the aims, objectives, use and coverage of e-learning set within the organisation's overall learning strategy
- interviews with those responsible for supporting e-learning provision to understand how the process and the individual are supported in terms of learning style, learning objectives and e-learning content
- discussions with e-learners themselves to understand the experience of e-learning, the support needed and the support received

- discussions with line managers of e-learners to understand the role that managers play in encouraging and supporting e-learners.

A combination of public and private sector organisations took part in this component of the research, representing the following industrial sectors: media, central government, finance, and ICT. All sectors known to have relatively higher use of e-learning (Young, 2002; Dodds and Verest, 2002; Lawton, 2003; Allen, 2003; Clark 2003a; Clark and Hooley, 2003). These visits took place in 2002 when the growth of e-learning was considered to have plateaued (Sloman and Rolph, 2003).

Education and e-learning providers

In addition to the case study visits we also spoke to e-learning experts in education and e-learning providers to see what lessons the corporate market could learn about supporting e-learners. These included experts from the higher education sector, where e-learning has been in use for some time driven by the need to cater for ever increasing numbers of students against a fixed cost base (Clark and Hooley, 2003).

1.1.3 Report structure

The report follows the learner through the e-learning process as outlined below:

- **Chapter two** explores the importance of providing support for learning, and looks at the level of support needed for e-learners in contrast to those learning in more traditional ways.

- **Chapter three** focuses on the initial stage where e-learners embark on a course, and explore the nature of support needed to get learners started.

- **Chapter four** looks at the support needed to keep learners going, to help them continue learning and interacting with the system.

- **Chapter five** focuses upon the support to maximise the learner's experience and to move them on to develop further and apply their learning.

- **Chapter six** draws together conclusions for e-learner support in organisations.

- The **Bibliography** gives a list of reports and articles used to compile the report.
- The **Appendix** is a glossary of terms.

The next section of this chapter provides a basic overview of some of the key issues in e-learning and supporting learners.

1.2 An introduction to e-learning

E-learning is not new, it has been around for some fifteen years or more and is continuing to evolve. The market for e-learning was predicted to have great growth and indeed it saw a massive expansion in the early part of this decade. However, the growth has slowed somewhat and the market has seen consolidation with some companies merging and others failing. The e-learning industry is still maturing and there are many lessons to be learnt if e-learning is to reach its full potential and find its place within the wider role of education and training.

E-learning involves the delivery and administration of learning opportunities and support via computer, networked or web-based technology. It increases and enhances the range of opportunities available rather than replaces traditional forms of learning, and allows organisations to 'blend' classroom training events with more sophisticated learning solutions to better suit organisational and individual needs. However, it is not the quick and cheap fix that was once envisaged.

The approach places the learner at the heart of the learning experience and, through the use of short segments of learning material and a range of different media (audio, visual, text and graphics), allows individuals to create a tailor-made learning experience that is 'just in time, just enough, and just for you'. It allows access to learning opportunities and knowledge at a time and place that is convenient to the learner. However, to ensure successful learning, learners need to be supported through the process.

1.2.1 Uses of e-learning and the level of support required

E-learning can be used for a range of different purposes and to serve different markets, which indicates its wide reaching

potential. Indeed, it can be defined at three levels, based on its purpose or objective:

1. information provision
2. instruction (often referred to as the 'stuff' of e-learning)
3. knowledge management (often referred to as the 'stir' of e-learning).

The way in which e-learning is applied in an organisation has implications for the type and level of support required by e-learners in order to ensure a successful and straightforward learning experience. The need for support increases as one moves through the levels.

Information provision: e-learning as performance support

At the first level, e-learning involves the provision of information via information and communication technologies in an accessible or immediate way that can enable individuals to extend their knowledge, improve performance or carry out a task. It is argued that at this level, e-learners need little extra support with the learning process although they may still need support to operate the technology involved.

Here, e-learning acts as job support, providing individuals primarily with reference information, small chunks of up-to-date, accurate and relevant data just when and where it is needed *eg* when an individual is about to perform a specific work task (Epic, 1999c). This information can be new to the individual or can be provided as a memory aide or act as a refresher. An example here would be an electronic performance support system (EPSS) (see Shepherd, 2001), which can be operated through a device such as a personal digital assistant (PDA) (see Kiser, 2001). More advanced forms of e-learning as performance support can actually help individuals to make work-based decisions or take work-based actions. There is some argument here though about whether the use of e-learning as performance support actually involves any learning. For example, Reynolds *et al.* (2002) describe this use of e-learning as performance enhancing modules rather than learning tools noting that:

> *'these are not intended to foster deep learning and reflection: their main objective is to offer fast and targeted assistance to*

individuals suffering from a glut of information and a shortage of time. They are, as the name implies, extensions of a person's intellectual machinery, not instruments to transform behaviour'.

<div align="right">p.10</div>

However, Shepherd argues that EPSS forms of e-learning are really formalising the process of on-the-job training and could therefore be called e-Nellie[1].

CASE

A financial organisation uses e-learning for performance support. An example is the online testing system, which acts as a formal assessment tool but also acts as a revision aid. Staff who advise on financial matters are required to be formally tested every three months because of regulations in the banking industry, and the new online testing system (which has a question bank of over 10,000 questions) allows staff to be able to undertake mock tests. In this way staff can identify gaps in their knowledge, and then tailor their revision plan accordingly – revising only selected aspects.

Instruction: web-based training

At the second level, e-learning is used to provide structured events and interactive learning materials designed to facilitate skills or wider personal development. This use is most commonly associated with the term e-learning and is what Reynolds *et al.* (2002) refer to as 'web-based training' or 'learning at work'. This application of e-learning requires some provision of e-learner support.

Here, e-learning incorporates a continuum of learning solutions that move from a corporate training model to a higher education distance learning model. For example, at one end would be a short, one-off, self contained, hard skills, totally online course, such as a health and safety regulatory training module. Whereas at the other end would be a long, complex soft skills course incorporating a series of modules and delivery channels including online learning, such as an online MBA. Thus e-learning as instruction differs according to the time commitment involved (including off-line study), the type of skills to be developed, and in the amount of interaction with the material,

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[1]   This comes from the phrase 'sitting by Nellie' which refers to learning that is acquired from watching a more experienced colleague at work.

instructors and other learners. As this type of e-learning varies so too does the type and level of support required.

For example, Shepherd refers to the 'loneliness of the long distance learner' noting:

> *'No-one's going to get lonely using a five minute, just in time learning object delivered to the desktop. This form of online learning does not require much support. Perhaps an email help line to handle subject matter queries, but that's all. But the longer the course, the more likely support will be required. It is an unfortunate statement on humanity that most of us find it hard to sustain the motivation to learn indefinitely. We run out of steam. We need encouragement. We need to be reminded why its important to get to the finishing line.'*
>
> Shepherd, 2000

Therefore, those studying on longer programmes, both in terms of time at the computer and time committed off-line for other study, will need greater support to sustain their motivation.

There is much discussion as to whether e-learning is really suitable for the development or instruction of softer skills (or business/people skills or 'know how') such as management, communications, sales and customer services, diversity, and team building (see for example Clark, 2005). At the beginning of the decade, e-learning commentators (see for example, Urdan and Weggen, 2000) were predicting that technical skills training would fall behind soft skills training. However, the e-learning content market is currently dominated by IT or technical skills training (see CIPD, 2003 and Bonk, 2002) and our work with the case study organisations also confirmed the greater use of e-learning for IT skills. It would seem that those studying to acquire soft skills would need greater support than those studying technical skills, as softer skills need greater personal interaction.

Lastly, those taking courses designed to require little interaction with the material and no tutor or instructor support will tend to need little technical, subject or personal learning support. However, those taking courses designed to use more complex interactive technologies, and with greater interaction with fellow learners and with tutors (or subject matter experts) will need support to get to grips with the technology and 'neti-quette' involved.

A financial company has a long history of using technology in developing IT skills and it feels that e-learning has a greater acceptance among the IT population. However, more recently the organisation has been using e-learning for personal development learning. It finds that e-learning is used as a quick reference guide but also as a basis for people to learn new material before attending face-to-face workshops.

Knowledge management: e-learning as learning communities

At the third level, e-learning is multi-dimensional and embraces the first levels into a wider performance support framework. Here, it is coupled with processes to administer and monitor learning provision and outcomes, and to provide learners with various forms of support from experts and peers. It is about building and managing knowledge, and is the most ambitious and exciting application of e-learning and requires the greatest degree of support to ensure success.

The connectivity and interactivity engendered by technology provides learners with access to a range of other learners, experts and other people who could provide support. E-learning is used to build collaborative communities of learning where knowledge is created, captured and shared. The social interaction between individuals is important as it not only leads to knowledge construction – but as Reynolds *et al.* (2002) note – it can enhance an individual's ability to learn, and can amplify and solidify learning.

A media company has a number of learning community initiatives. It is encouraging individuals to set up job-related networks, accessed via the organisation's e-learning provision, which will allow people working in similar posts around the country to exchange ideas. These networks are not formally facilitated as the organisation feels that user-led groups are more effective. It also has a network which cuts across the whole organisation allowing more informal discussions: a skills exchange scheme where staff can approach people that they would like to work with in order to build specific skills; and a network to enable individuals to find and interact with staff who have a particular subject expertise.

1.2.2 Models of learning

E-learning is changing the way individuals can learn inside (and outside) organisations however it is also operating within a context in which conceptions of learning are changing. We are seeing a cultural shift in the responsibility for learning, where individuals, rather than organisations, are responsible for their own learning and individuals are encouraged to see learning as a continuous process (lifelong learning).

We are also seeing, particularly in education but also in some business organisations, a corresponding change in the accepted model of learning. We are moving away from a conception of learning as the transmission of a discrete body of knowledge through step-by-step instruction involving one way communication from teacher to learner. This is a linear model based on behaviourist theories (such as those proposed by Pavlov and Skinner). The new model involves the idea that knowledge is shared and created amongst all levels and functions of an organisation, involving communication that is both two way and many to many through the creation of 'communities'. This is a non-sequential model based on constructivist theories or social theories (such as those posited by Dewey, Piaget and Vygotsky).

> *'The revision of e-learning models probably has to begin by acknowledging that information transmission isn't the same thing as knowledge assimilation – a stream of information pumped through the internet is more likely to result in a puddle of incomprehension than any real competency. We will have to acknowledge that a significant percent, perhaps even most learning, is going to develop among people, among community.'*
> Greenagel, 2003

We can see the two contrasting models of learning emerging in the different uses or forms of e-learning. E-learning as instruction fits with the traditional knowledge transmission model of learning (or training):

- there is a fixed body of knowledge (or content)
- it is passed on by one individual to a number of others
- the learning is mainly directive (individuals are told what to do)
- the learning is in the domain of the organisation

- the learning is shaped in a specific direction and has a specific purpose and outcome which is defined by the organisation (not the learner)
- the learning can be assessed

> Sloman, 2001; Rosenberg, 2001; Online Learning News, 2002

E-learning as knowledge management, however, fits with the newer knowledge transformation model:

- meaning is constructed through exchange and experimentation
- the focus is not on the content, information or knowledge itself but on the process of creating the knowledge
- the learning is in the domain of the individual (students are responsible for their own learning)
- teachers are responsible for facilitating of learning rather than disseminating information

> Sloman, 2001; Online learning news, 2002; Murphy, 1997

This shift is placing greater emphasis on the individual, and some organisations are therefore recognising the need, indeed perhaps moral duty, to support individuals in the process of their learning – recognising that independent learners or knowledge creators are made rather than born. This is particularly noticeable in higher education, with its experience of providing distance education.

'Whether in the classroom or via distance education, the development of independent learning does not just happen. University faculty are seldom trained as teachers and it is no mean task to lead students to discover the joys of learning and to develop their own learning skills. It also does not necessarily follow that distance education develops independent learners just because students are on their own. Careful and tailor-made course design, strong student support and library services, and an emphasis on interactive learning are all fundamental to such an approach. Without such care, student drop-out rates are sufficiently high in distance education as to belie its supposed advantages in cost and convenience.'

Paul and Brindley, 1996, p.53

1.3 Summary

Our previous research confirmed that support for e-learning is vital at a number of levels – technical, expert, peer, manager – and is perhaps even more critical because of the lack of classroom interaction that forms the basis of traditional learning.

This report will build on the previous work to investigate how organisations are supporting their e-learners, individuals who are using the new systems and technologies available to enhance performance in their job, to learn new skills, or to interact with others to create and share knowledge. In this report we acknowledge that organisations and individuals are using e-learning for different purposes, have different levels of experience, and that this has implications on the types and level of support required. We also recognise that notions of learning are changing placing greater responsibility for learning on the learners themselves, and placing greater emphasis on interaction between learners and on transforming rather than transmitting knowledge. This too will affect the support required by learners. Thus in planning support for learners, organisations must be aware of:

1. their use(s) of e-learning
2. their model of learning.

In the next chapter we look at why support is important in e-learning, we then look in the following chapters at how organisations support learners at the start, during and beyond their e-learning, and finish with a chapter setting out our conclusions.

2. Why is Support Important?

As we noted in our previous work to explore e-learning (Pollard and Hillage, 2001), supporting the e-learner is an important factor to achieving a successful learning experience for both the learner and the organisation, yet this has tended to have been overlooked by many employers. In this chapter we ask why e-learner support is considered necessary and discuss whether the support required for e-learners is different from that required by those learning in a more traditional way.

2.1 Why support e-learners?

The emphasis on support for e-learners has tended to result from a high drop-out or non-completion rate for e-learning in organisations, coupled with a low take-up and an even lower return rate (Campaign for Learning, 2000; Bonk, 2002). Organisations are building e-learning solutions to meet individual and organisational needs but employees are failing to fully engage with the opportunities provided.

This reluctance has been assigned to concerns over the time required to e-learn, perceptions and real experience of loneliness and isolation when e-learning, fear of the technology involved, frustration with poor quality e-learning systems and content, and a lack of interest and incentive to e-learn (Clark, 2001b; Bonk, 2002; Brink *et al.*, 2002; Welsh *et al.*, 2003). Indeed Diaz (2002) describes three categories of factors that could explain attrition in online learning: *student* factors such as motivation, preparation, and academic self-concept; *situational* factors such as family and employer support; and *educational system* factors such as quality and difficulty of instructional materials and provision of tutorial

support (in a variety of formats). These influences on e-learning can affect individuals at different stages of the learning experience, at the start, in the middle of a programme or at the end of a course, and each of these aspects is discussed in the following chapters.

It is clear therefore that some organisational initiative is required to overcome these real and perceived barriers to corporate e-learning and improve the numbers and experiences of e-learners. We feel the key here is support – in all its various guises:

> *'if you just throw a program at them, with no support, only 10 per cent complete it. But if you give them technical support, online assistance, coaching or mentoring, and an environment where they can concentrate then that makes all the difference'.*
> quoting Bill Wiggenhorn, former president of Motorola, in Bonk, 2002, p.24

> *'… it is very important that adequate support is available to learners doing e-learning. There is nothing worse for learners' motivation, satisfaction and confidence than being stuck alone at a keyboard not knowing how to progress through the course. So lack of timely and effective support can end up putting people off learning, which is in no-one's interest.'*
> Schmoller and Jennings, 2005, p.9

We should, however, acknowledge that there is a debate about drop-out in e-learning. Many commentators argue, rightly so, that drop-out or non-completion in e-learning should not be synonymised with drop-out in traditional classroom instruction. A key feature of e-learning is its flexibility and accessibility so learners can dip in and out, picking up information and instruction as and when they need it. Learners may not need to follow a complete course in order to get what they need, and therefore should not be considered non-completers. For example a recent small survey by Skillsoft found that over three quarters of e-learners did not complete a course in one go, and that the vast majority (92 per cent) of all learners surveyed had learnt what they needed regardless of whether they had completed the course:

> *'for many employees interviewed, course completion is not something they consider to be significant because as soon as they learn the skills they need, they often come out of the course to put*

the learning into practice at once, demonstrating the benefit of just-in-time learning'.

<div align="right">Skillsoft, 2004, p.17 [1]</div>

It is also true that the etiquette governing classroom instruction and e-learning differs. It is considered socially unacceptable to walk out of a classroom session before it has finished, whereas to drop out in e-learning is easier but potentially highly visible because of the tracking systems in place (see section 4.1.3 about the possible disincentive to e-learning of 'surveillance').

> *'Comparison with the classroom on drop out rates is also a little unfair, as the classroom is a social space. It is impolite to walk out. People drop out of the classroom experience all the time. They mentally disengage with the learning experience. They get lost, stuck or simply daydream. Dropping out by walking out is simply socially unacceptable. The difference is that in e-learning, the drop out is visible. This could be an advantage in the sense that, unlike being trapped in a classroom, the learner is getting on with something useful.'*

<div align="right">Clark, 2001b, p.10</div>

There is therefore a consensus that we need to support e-learners but there is a debate about just how to do so. Should we provide more support (than is provided to traditional learners), less support or different support?

2.2 More support?

One view is that as e-learning is so different from traditional learning and training, the e-learner needs more support in this 'virtual' environment.

> *'Providing sufficient support for the online learner … is crucial to the eventual success of any course delivered online. The online learner needs more support than a traditional learner, as they do not have regular informal contact with their peers.'*

<div align="right">Milligan, 1999</div>

Individuals participating in classroom training can interact both formally and informally with a tutor and with fellow learners in a time and space solely designed for learning which is free(er)

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[1] survey of over 200 e-learners across 15 organisations in the UK

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from interruptions and distractions. They can ask questions, clarify understanding, exchange ideas and share the experience of learning, encouraging and enthusing each other. However, individuals who are learning online, often at their own desks in their work environment, are interacting solely with the computer and the program. They will need social support, and support with operating the technology, with subject-related questions and with coping with the distractions of the workplace (Paul and Brindley, 1996).

2.3 Less support?

An opposing view is that the vast array of benefits that e-learning provides means that the individual e-learner needs much less support than the classroom participant. E-learning can provide:

- engaging material presented in a variety of media
- information and instruction to individuals at a time (just in time) and place (the desktop) when it is most needed
- a large catalogue of small 'nuggets' of training that learners can piece together to design their own tailored learning experience.

In this way, e-learning can provide individuals with a short personal learning experience tailored to their needs and opportunities to study which is delivered to the social environment in which they will apply the knowledge or skill. These individuals are not socially isolated, they have opportunities to discuss and apply learning with colleagues and fellow learners. E-learners therefore need very little support outside of that provided by the system, and indeed, as Mason (2002) notes in her work on distance education, any support provided may be viewed as interference and *'unnecessary hand holding'*.

However, Mason does suggest that to ensure learning is taking place, e-learners may still need support in the form of a learning advisor *'rather like a fitness trainer [who] could advise students on appropriate choices and combinations of learning modules'* (p.10).(see section 5.3).

A central government department supported their system of traditional training (involving classroom sessions, videos and guided learning units) with technical experts, who provided the face to face training, and with a network of super users. Super users were staff with a subject or technical expertise, who were contracted to dedicate a set percentage of their working time to support those having difficulties getting to grips with particular new subjects or skills. The system worked well but was very costly and resource intensive, so one aim of moving to e-learning was to reduce the amount of support needed in the organisation. It was felt that e-learning in the organisation would need much less support because of the tailored, relevant and constantly revised and updated content, the organisation-wide IT training to provide a foundation level of IT literacy, and the visible support of management.

2.4 Or different support?

The most common view is that e-learners do still need support but support of a different and changeable nature, or accessed in a different way, to that provided in a more traditional environment. Different support is needed, or perhaps is enabled, as e-learning:

- allows for new ways to learn
- operates in a changing context towards learning
- involves new technologies
- can be used for a variety of purposes.

E-learning is not only changing the way in which individuals can learn in organisations but (as noted in chapter one) it is operating within a paradigm shift towards viewing learning as creating rather than passing on knowledge, and in which learners take responsibility for their own learning. Here, then learners require support for self-directed learning. They need support to help them understand: *'what I should learn and what courses I should take; why I should learn and what's in it for me; and how/where and when can I apply this learning to my work?'*.

Sloman (2001) argues that support in e-learning is different because it is not only affected by the learning need but also affected by the technology involved – the delivery channel/platform. He states that the new technology offers opportunities for improved learning but that it needs *appropriate*

support, which he refers to as 'soft technology'. E-learning and its related technology allows for different channels for the delivery of support. Support, rather than being face-to-face or provided through manuals, can now be offered virtually or automatically. Through technological connections, learners can engage in 'digital collaboration' (Sloman, 2001), interacting with a wider range of individuals than previously afforded by a classroom session. These interactions can be in real-time (synchronous) or over an elapsed time period (asynchronous) and are facilitated by a range of ICT tools. The software can also provide learners with tailored rather than generic automated support.

Lastly, e-learning encompasses a range of learning and training activities, and (as noted in chapter one) each use of e-learning requires different levels of support. In some cases, more support is needed to overcome social isolation and gaps in skills to manipulate the delivery technology, or to develop the skills and behaviours required to learn in new ways (creating rather than receiving knowledge). Yet, in other situations, much of the support is built into the e-learning system and little else is required. One thing is clear, there can be no standard model of support. Just as e-learning moves away from a 'one size fits all' model of learning and training, e-learning moves away from a 'one size fits all' model of support traditionally involving the trainer, the classroom, the course notes, and fellow participants.

2.5 Summary

Organisations need to recognise that supporting learners is important, and cannot be overlooked. It is a key success factor in perhaps all forms of learning whether it takes place within educational and lifelong-learning contexts or corporate-training contexts, and whether it takes place in a classroom or at a distance using communication technologies. Support ensures learners engage with the opportunities on offer, and have a positive learning experience. However, the new approach to learning particularly enabled by the new technologies, and the technologies themselves, require a different approach to support than previously offered under traditional delivery models.

3. Getting Started: What Support is Needed?

There are several key stages or phases in e-learning. Nixon and Salmon (1996) focus on *learner* progression and suggest there are five discrete steps in moving a new student to an independent online learner: access and motivation, online socialisation, information exchange, knowledge construction, and finally development. Whereas Naish (2002) looking at organisational or *learning* progression, describes three stages – before, during and after:

> *'In general terms, success for e-learning in an organisation must be at the three stages of "before", "during" and "after" the learning. Before: people must be motivated to learn. During: people can quickly and easily learn what they need to learn, to make themselves and the organisation more effective (access, usability and strategic alignment). After, people are supported in the application of this e-learning by the organisation's management, processes and structures.'*
>
> Naish, 2002, p.18

We have also chosen to describe three stages. These are 'getting started', 'keeping going', and 'completion' (if appropriate) and beyond. It is useful to break the e-learning process into stages, and categorise it in this way, as e-learners will require support at each of these stages. This chapter focuses on the initial stage where e-learners embark on a course, either for the first time or on a new course of study or a new application for e-learning. The next two chapters look at continuing with learning, interacting with the system and at successfully completing learning and transferring it to the workplace.

Getting e-learners started could be argued to be the most important stage in implementing e-learning in organisations. It is not enough to provide e-learning opportunities and expect learners to come. This stage focuses on student factors (Diaz, 2002) and is about:

- encouraging participation in e-learning and requires organisations to understand and encourage learner motivation. It is about helping individuals to be able to see the value in e-learning in order to engage in it willingly – potential learners need to know what is in it for them and have self confidence, self belief and self esteem

- understanding and removing any barriers to e-learning. Organisations need to help individuals overcome any resistance they have to e-learning and help them feel comfortable about learning online.

It is also about addressing the issue of access and providing individuals with both the necessary hard- and software and the technical skills and confidence to engage in learning.

> '… training organisations must do everything possible to create a smooth transition for learners to an e-learning mode. Adequate preparation of participants, effective communications, and great user interfaces are just some of the areas that must be considered.'
>
> Rosenberg, 2001, p.258

3.1 Motivating learners

> 'The disposition and commitment of the learner – their motivation to learn – is one of the most critical factors influencing learner effectiveness … The motivation to learn may be defined as those factors that energise and direct behavioural patterns organised around a learning goal.'
>
> Reynolds et al., 2002, p.34

Motivating individuals to learn is important both to traditional learning and to e-learning, and the techniques and devices involved are largely the same. However, Hofmann (2003) argues that motivation is particularly key in e-learning as *'online learning comes with a stigma that it is totally unmotivating … isn't real learning, and is more trouble than it is worth'*. The literature recognises factors that motivate or 'energise' behaviour can be divided into two groups: intrinsic factors from within, and

extrinsic factors from outside (see Reynolds *et al.,* 2002 for a good discussion of motivation theories).

3.1.1 Intrinsic motivators

Intrinsic motivation factors are deemed to be the strongest of the groups of factors and tend to remain stable over a person's life. They include:

- interest and curiosity
- fun and variety
- interaction and collaboration
- desire to grow or achieve personal goals (personal development)
- the urge to solve problems.

Sloman (2001) discusses motivation, and refers to the work of Marcy Driscoll (2000) who posited that the main sources of learning motivation were: curiosity and interest, goals and goal orientation, and self efficacy beliefs. The importance of confidence and self-belief in motivation to learn is similarly noted by Bonk (2002) and Clark (2001b).

CASE A financial company provides learning opportunities to cover a range of motivations: performance development opportunities which help individuals in their current job, career progression learning opportunities which help individuals get ready for their next job, and personal development learning which is not necessarily directly related to their job at all. Through a dedicated career management site on their intranet, employees can see 'learning maps' for jobs (the skills and competencies required for jobs), they can see the job opportunities across the organisation, and they can undertake training needs analysis. In this way, staff can see what learning they need and the value in undertaking that learning. The organisation believes that this system has had a positive affect on their staff attrition rate.

3.1.2 Extrinsic motivators

Extrinsic motivation originates from external structures, often referred to as incentives. These can be much more changeable as people change roles and social groups. These tend to receive the greatest attention in organisations, as they are perhaps the easiest to address. They include:

- professional standards

- recognition such as qualifications and certification (*eg* certifying improvements in learning)

- rewards (carrots) such as increased job responsibility or security and financial bonuses

- avoidance of negative consequences (sticks)

- need for social approval (and peer or line manager pressure).

Pay and qualifications are the most often quoted extrinsic motivational learning factors. For example, Rosenberg (2001) suggests that linking knowledge to pay can motivate learners (a carrot approach).

> *'We often talk abou*t *pay for performance, with top performers earning more than poor performers. But why not pay for knowledge as well? This is not simply an incentive for learning anything an individual wants to learn; rather it is a motivation for people to learn in areas the firm believes will be useful for the future. If people take the initiative to learn new skills that can be directly applied to improve performance in a demanding business environment, isn't that effort worth recognition, maybe even monetary recognition?'*
>
> p.187

Salmon (2000) and Sloman (2001) note the importance of assessment and the desire to achieve qualifications on the motivation to learn. However Salmon does caution that many assessment procedures are based on the knowledge transmission model rather than the knowledge construction model. Therefore assessment and achievement of qualifications is only appropriate (and can only act as a motivator) to some online learning environments.

Salmon (2000) also goes on to note that there are 'sticks' (penalties) for engaging in online learning, but recommends these are turned into carrots. Sticks can include: making other ways of learning more difficult, linking participation to assessment, providing key pieces of information only online and for short periods of time only, and setting clear deadlines. Clark (2001b) however argues that social incentives such as approval or disapproval are the strongest of the extrinsic factors, and that this is where line managers can provide key support (see also section 5.2.1).

Epic, a major e-learning provider, cautions against organisations' paying greater attention to extrinsic motivational factors because intrinsic factors have a stronger and more stable influence on the learner (Clark, 2001b). Similarly, Reynolds *et al.* (2002) suggest that to create the ideal conditions for successful learning the organisation needs to align both extrinsic and intrinsic motivation, helping learners to develop an expectation and a sense of achievement. Under these circumstances learners will not only value the activity in itself but also the potential rewards it may bring, and with plural motivation will not just have a one-off or an on-off engagement with e-learning.

CASE	An e-learning provider has been piloting an e-learning model for a major high street bank. To encourage individuals to engage in e-learning, the provider has put product knowledge and information on the company website (intranet) and managers are regularly and formally encouraged to use this website (and improve it). For example they have regular face-to-face meetings and before these meetings they are required to access the site and 'learn' about products. In this case, e-learning is built into face to face processes. This is, to some extent, a stick, in that key information is only accessed online.

3.2 Overcoming barriers and marketing

Recognising and removing barriers or de-motivators to e-learning also plays an important part in getting learners started. There are many reasons why individuals fail to engage with learning, and with e-learning in particular. Rosenberg (2001) suggests there are those barriers which are common to all learning:

- time
- money
- fear of showing a lack of skill
- an inability to equate learning at work with real learning
- low or no perception of need
- negative attitude towards education
- lack of interest or awareness of opportunities
- lack of confidence, and a fear of or inability to learn without help

and those that are specific to e-learning:

- a perceived loss of a reward (*eg* attending classroom training)

- a fear of the technology involved and lack of relevant skills (see next section)

- an inability to equate learning online with real learning.

People feel they do not have the budget to engage in learning, they are simply too busy to take time off to learn (even to learn online at their desks), they do not have the skills involved to learn online, they do not see the importance of learning continuously throughout their working life whilst at work (because they hated school anyway). They do not recognise learning via their computer as real learning, they do not know of the opportunities available to them, and they just do not feel they can do it. A small survey of e-learners showed the most frequently reported barriers were lack of time, fear of the technology / lack of understanding of e-learning, and lack of self motivation (Skillsoft, 2004). However, as noted above, many of these barriers are not limited to e-learning:

> *'Many individuals lack the motivation to learn … The majority of adults in the UK form what Professor Michael Barber called the "disappointed, disillusioned and disappeared". People who had been disappointed or disillusioned by their experience of education at school, in further education or in the workplace, many having literally disappeared from the learning landscape.'*
>
> Clark, 2001b, p.3

3.2.1 Promoting e-learning

> *'… word gets around fast. Make sure the word about online learning is positive and constantly reinforced by people that matter. An initial marketing burst without a continuing campaign will make your initiative appear to be another passing fad. But regular news about what courses are coming up and their importance to the organisation will help employees understand that online learning is an integral part of the organisation's learning culture. If online learning is "in", employees will want to be part of the crowd …'*
>
> Hofmann, 2003

Timely promotion and targeted support can help. Indeed, Epic considers marketing to be *'an integral and continuous component of implementation'* (1999b, p.13). Marketing can help to overcome erroneous perceptions and fears, get people to feel comfortable

about learning online, and demystify the medium (Nixon and Salmon, 1996). Thus organisations can engage in promotional exercises to market e-learning to potential e-learners in order to raise awareness and encourage activity. This becomes an essential part of managing the change process from traditional forms of learning to blended learning (*eg* mix of online and classroom based provision – see section 4.2.3) or wholly e-learning. These exercises could include:

- regular updates of new courses (*eg* coming soon messages)
- personalised messages and news direct to potential learners' PCs
- adverts and eye-catching links on the organisation's intranet
- testimonials and success stories from courses
- taster sessions in a training centre or at an individual's own PC
- online events such as chat sessions
- face-to-face focus sessions to measure and feedback attitudes towards learning online.

  Epic (1999b), Clark (2001c), Hofmann (2003)

Organisations should also market e-learning to potential e-sponsors, such as senior management, IT specialists and trainers, in order to secure support. These individuals are crucial in providing the human-side of e-learner support (see chapter six).

It is important to note that some individuals will be harder to reach or 'convert' even with promotion. The work of Moore which focused on the challenges of embedding new technology found that in any organisation there will be individuals who are willing to try out any new idea (early adopters), those who are perhaps more conservative but will become interested over time (the mainstream), and those who are very resistant to change (laggards). Moore suggested that there was a chasm between the needs and wants of early adopters and the mainstream, and that this is has been the stumbling block of many high technology innovations (Moore, 1991 cited in Flowers *et al.*, 1998)

A central government department published its e-learning marketing strategy and promoted its e-learning opportunities internally – reminding people of what it offers. To accompany this launch, the training team held workshops, attended staff away-days, and held quarterly induction programmes to raise awareness of e-learning. The department has a complex organisational structure and not all staff have access to the intranet, so it has training liaison officers attached to each of its divisions. These individuals are responsible for promoting e-learning, they also collect details of all the opportunities and can provide them in an alternative format, *ie* hard copy.

3.3 Dealing with inexperience

Another key factor in successful initiation of e-learning is dealing with inexperience. E-learners may be new to the technologies involved and so may lack confidence and the necessary technical skills, and be somewhat fearful.

> *'… web-based environments are new to the learner and require considerable learning in their own right. There are new concepts, new vocabulary, new browser options that all have to be learned …'*
>
> Collis and Meeuwsen, 1999, p.29

3.3.1 Technical skills training

A key de-motivator or barrier to learning is fear of the technology involved and a lack of the relevant technical skills. Indeed, Collis and Meeuwsen (1999) argue that we need to be aware of students' capacity to learn in a web-based environment. Rosenberg (2001) similarly notes it is important to ask the question 'Do people have the skills and knowledge to e-learn?'. And if they don't, he argues that it is important provide them with some help: *'Don't simply plop computers down in the workplace where they haven't been before and expect everyone to rush to use them'* (p.201).

Organisations therefore need to assess the technical skill level of learners. Can they use the packages? Diagnostic tools, monitoring exercises and data may be useful here. They then must provide appropriate IT skills training. Williams (2000) notes that training in ICT significantly reduces anxiety which can strongly inhibit use of technology in learning, but that this training must take place before the course begins and that

learners must also be given time to develop their e-learning skills before assessment. Sloman and Rolph (2003) note the successful use of the 'European computer driving licence', a computer skills certification programme, to build basic computer skills and awareness in several case study organisations.

Salmon (2000) agrees that ICT skills are important but feels these can be learned through e-learning. Lack of technical preparation can be a key stumbling block. Indeed, surveys indicate that e-learning usage is still greatest in organisations with a high use of computers, amongst IT staff, and is most effective amongst those with high computing efficacy (*eg* Brown, 2001; Young, 2002; CIPD, 2003a; Welsh *et al.*, 2003).

CASE | A central government department introduced training programmes specifically designed to get people started with e-learning within the department. They upgraded their hardware and software across the organisation, provided training in using the new technology to all staff (half day course delivered traditionally) and introduced a study skills course 'preparing for individual learning' aimed at those either about to start an individual learning course or planning their self development. The organisation feels that this IT upgrade and intensive training push has greatly increased individual motivation to become involved in e-learning, branded 'individual learning'.

There has been much said about the age gap in e-learning. Younger learners may have greater exposure to the relevant technologies (at home or at school) than older learners, and therefore may be familiar with the technology and processes and may already accept, or indeed expect, learning online. Svendsen (2002) notes that the online learners of the future will have grown up with computers at home and at school. They will be accustomed to sitting in front of a monitor, will have short attention spans, will be able to type, and be more comfortable reading a screen than a book. They will understand forming relationships over distances and be accustomed to working alone. Above all, they will not fear the technology but will embrace it. Similarly Salmon (2000) feels that the learners of the future will be of the 'playstation' generation.

> *'They will be accustomed to highly immediate, interactive, visual electronic resources. They will want learning that is "just in time, just for me, just a keystroke, just for now" … Long–living, long-working, independent learners will be mobile and pragmatic. They*

will become comfortable and skilful in choosing from a vast electronic array of opportunities.'

<div align="right">Salmon, 2000, p.90</div>

However Rosenberg (2001) comments:

'We are rapidly becoming very comfortable with computer and internet technology and there is no question that in time a new generation of workers will expect to learn via this technology. But of course, waiting for a generational turnover is not an option. The time is now to build an e-learning strategy that meets the needs of today's workers, some of whom are ready for the this change, and others who will need help in the transition'.

<div align="right">Rosenberg, 2001, p.xviii</div>

The rise in the number of 'silver surfers' emphasises the need for caution in making assumptions about older learners and their abilities to adapt to or adopt new learning systems (see Newton *et al.*, 2005).

3.3.2 Induction or online socialisation

'… you need an e-learning host, a person who welcomes you to the e-learning site, and checks that you are OK ...'

<div align="right">Consultant, e-learning provider</div>

Not only do learners need to be able to use the computer technology and to direct their own learning, they also need to be introduced to the e-learning virtual environment – that is provided with information about the learning environment, welcomed to the system and helped to adapt to the new environment (Nixon and Salmon, 1996; Salmon 2000). Indeed, Bailey *et al.* (1996) regarded pre-entry guidance and induction and preparation to be amongst the key elements of learner support.

McVay Lynch (2001) too stresses the importance of online orientation to prepare learners, especially in distance e-learning in universities. She notes that a lack of skill in the domain of online learning impacts on individuals' ability to adapt to the new learning environment, which can adversely affect motivation. She feels learners need opportunities to familiarise themselves with the technology and the learning process, and may benefit from a face-to-face induction session, so that they can meet fellow learners, reduce feelings of social isolation and

build a sense of community before they embark on independent e-learning (eLearnity, 2000; Frank *et al.*, 2003). This may help to facilitate and encourage interaction amongst learners and as such will be particularly useful for more collaborative applications for e-learning. Online orientation or familiarisation may also be provided through taster sessions, where individuals can 'have a go' without the pressure of a learning goal.

Careful introduction to e-learning is especially important in more complex e-learning applications. Indeed, Salmon (2000) in her work on computer-mediated conferencing (CMC) notes:

> *'In the early stages of learning CMC, users draw on their previous computing experience if they have any. In most contexts, the percentages of students with difficulties over access or with no computing knowledge are decreasing. This trend is likely to continue. However, students' experience is most often in word processing or spreadsheeting, surfing the Internet for information or in playing multi-media games. As yet, few students are starting to learn through CMC with much experience of communicating through computers. Training and induction programmes will be important for some years to come … For some novices, meantime, the potential benefits of CMC may only be readily accessible with careful support'.*
>
> Salmon, 2000, p.71

Interestingly, Salmon categorises users of CMC in three ways (similar to Moore's adopter groups – see section 3.2.1) and these categories may also be useful in describing e-learners in general. Firstly, there are 'swimmers' who dive in early and are willing to help others. Next there are 'wavers' who need considerable help and encouragement to get started but become enthusiasts. Finally there are 'drowners' who find it very difficult, complain a great deal and have little motivation. She feels it is important in the early stages to try to convert both wavers and drowners to swimmers, and that the key to this is appropriate support.

Organisations may therefore need to provide personal human support during this initial engagement period to introduce new learners to the process, to overcome individuals' fears, to indicate organisational commitment, and to help them to use the new technology effectively and enthusiastically. Human support could be provided by other more experienced e-learners, a tutor, or a centralised helpline or helpdesk (see chapter four).

CASE	Individuals acting as learning guides were provided in an ICT company to combat the high attrition rate and lack of interaction in online learning. The guides, for first-time e-learners, offered social support and human contact, they answered questions and connected learners to support staff during the first weeks of study.

CASE	A central government department found that most learners want hand holding with the technology. They want someone to sit with them and take the time to chat with them, to see what they are doing and to find out what they want from the training. Learners also seem to want to try out the learning before making a commitment.

3.4 Summary

People have different orientations or reasons for learning and for learning online, and will have different fears or factors holding them back. Individuals who do not see the need for, or use of, learning online, who feel too busy to participate and lack the technical skills involved will need different types and levels of support from those who are willing and able to learn online and who are motivated by a combination of internal factors such as interest and personal development, and visible and positive external factors such as line manager encouragement and career development opportunities.

In planning support to initiate e-learning, organisations need to:

● consider ways to motivate learners, looking at both extrinsic and also intrinsic motivators

● market the e-learning process and opportunities available, particularly to those who could then act as 'ambassadors' or internal sponsors

● understand potential barriers to e-learning and develop proactive strategies to overcome them.

● assess the level of technical skills in the organisation, providing IT training where necessary

● allow learners to familiarise themselves with the new virtual learning environment in a 'risk free' way, and facilitate this process through induction sessions and learning hosts.

As individuals gain more experience of e-learning, as long as these experiences are positive, and become more familiar with

the technology and processes involved they will need less support with technical aspects and with the online learning process. Instead they will need support to transfer the learning into the workplace, and support to select further learning opportunities (see chapter five).

4. Keeping Going: What Support is Needed?

In the previous chapter we noted the importance of getting e-learners started, however keeping them going is also critical to the success of e-learning in organisations. As noted earlier, organisations are concerned with the high levels of non-completion or dropout rates in e-learning compared with traditional learning methods. Employers, after spending time and money in developing an e-learning solution want people to use it, use it effectively, and presumably, use it more than once. Therefore employers must also target support towards those already learning online to ensure that users have a successful learning experience whether this involves 'completion' or not. Indeed, Meredith and Francis (2001) found in their study of work-based online learning as part of the pilot for the ill-fated e-University that *'in general, learners found it was easy to start but difficult to continue'* (p.7).

This stage in e-learning is about helping learners to deal with, and guiding them through, the e-learning process. It is about managing learners' expectations, building their confidence, and providing them with a positive experience; and also ensuring learners do not get frustrated with the experience of e-learning, feel isolated or get distracted. It focuses on educational system factors (Diaz, 2002) and more specifically it involves:

- sustaining a learner's motivation with relevant, accessible, easy to use, interesting and quality content

- providing learners with opportunities to interact with the learning material and with access to experts, tutors and fellow learners in order to clarify understanding and gauge progress

● providing learners with the time and space to access learning and to continue to learn.

4.1 Quality and control

4.1.1 Ensuring quality

'… be sure that the first exposure to e-learning is an extremely positive one. Again, one bad experience and the learners won't come back. If this is done well, users will more quickly become more comfortable with e-learning …'

<div align="right">Rosenberg, 2001, p.258</div>

A key benefit of e-learning is that it can provide a truly tailored learning experience that allows learners to access learning and information when and where they most need it. E-learning provides re-usable modularised content 'learning objects'. However for e-learning to be successful, content and environment must be taken into account.

E-learning content

E-learning content must be relevant, interesting, meaningful, self-contained, up-to-date, clear, and unambiguous.

'… good content is king … '

<div align="right">Clark and Hooley, 2003</div>

'… if the learners don't understand the relevance, they will tend to the minimal amount necessary in order to complete the program… '

<div align="right">Hofmann, 2003</div>

'… who likes learning something boring? If we don't care about a topic, we are less likely to stick with it and continue to learn. Even when we're interested in a topic, we are sometimes more motivated to play with the equipment or to daydream. We can get easily distracted from the task at hand and become more motivated to do something else perhaps not on task.'

<div align="right">Learnativity, 2002b</div>

The importance of good content is recognised by a financial organisation. They gathered feedback from e-learners during their e-learning pilot and found that the majority of comments were concerned with the content rather than with the process and methods of e-learning. Indeed learners reported that courses with relevant content whether traditionally delivered or through e-learning were more enjoyable.

A central government department believes in providing an interesting e-learning experience with good, relevant content, and interactivity; and believes that a positive experience will motivate individuals to engage in further e-learning. The organisation introduced a learning management system, which used training needs analysis and learner histories to tailor courses to individual needs. The department felt this enabled a more relevant and interesting learning experience that provided greater motivation to engage in e-learning. It notes that courses should be: designed to provide learner self support through clear explanations and access to further resources; be clear and unambiguous; and tested to resolve any potential misunderstandings.

Organisations' experiences indicate that user testing of courses is important in order to control quality of courses and to ensure clarity. As an e-learning expert in higher education distance learning noted to us: *'Overall clarity is vital. This is important in all aspects of learning but online, ambiguity seems to escalate'*. Clarity is also important in managing learner expectations. It is important to be clear about what is expected of learners, particularly in terms of the skill level required to undertake the course and the time commitment involved (Hofmann, 2003).

E-learning environment

The e-learning environment must ensure that the content is accessible and easy to use.

The content must also be accessible, it should therefore be well labelled and set within a readily navigable environment so that learners can move freely around and can easily find the information that they need. Williams (2000) notes, in her review of teaching and learning online, how familiar metaphors in the structuring of online learning environments can help students find their way around *eg* 'library', 'office' or 'café'. A virtual map

or learning site map will also help learners find their way, and find appropriate content when they need it.

A financial company discovered that learners were finding it hard to locate the e-learning opportunities that they offered via their 'university'. The routing through the intranet site and the labels used were causing difficulties. The organisation recognised that employees needed to be able to find the e-learning easily or they would be put off, so they worked hard to ensure that opportunities were properly sign-posted. This has worked well and the organisation reported that they received more 'hits' on the e-learning site in the first few months after the changes than were received in the whole of the previous year. They also set up a 'directory of learning' on their website, a searchable database of all of the courses that the organisation provides, whatever the delivery channel. Staff can help themselves to courses that are provided online but need authorisation from their line manager to participate in a face-to-face training event.

Good, easily accessible content is important as poor inaccessible content will frustrate and switch off learners. Harris (1999) notes that good content (and a good system) can transcend the need for an instructor. Rosenberg (2001) too notes the importance of content and the system it sits within:

> 'For all the effort that is put into e-learning, if learners perceived that this approach is more work, or more painful that what it replaced they will not participate again. This calls for much more consideration of ease of access, intuitive navigation, reduced bureaucracy (as in having to supply identifying information every time you log in), the ability to reuse and perhaps restructure the programme etc. Of course content is important, but if it's too difficult to use, it will be abandoned.'
>
> Rosenberg, 2001, p.257

4.1.2 Supporting quality of experience

The technology and equipment used in e-learning can also be harnessed to provide support to ensure the quality of the learning experience, particularly in terms of the e-learning environment. Examples include:

- frequently asked questions (FAQs) – lists of common queries and their answers

- online diagnosis of skill needs (to allow learners to select appropriate learning)

- pre-tests to assess whether learners are ready for the next level of the course
- logging and tracking of personal development and progress, and online assessments or quizzes which provide feedback on progress, facilitating and motivating learning (see for example Epic, 1999a; Twigg, 2003a).

A media company worked towards a list of FAQs to support e-learners. However they encountered problems because learners found the FAQ list too difficult to find, so all queries were still being routed through the helpdesk. This prompted further development to increase usability and use.

However, one emerging aspect of support enabled by the new technology is the intelligent tutoring system (ITS). Here computers act as tutors by tailoring learning problems and questions to the changing needs of individual learners and by delivering constructive feedback. The software can make decisions and recommendations to make learning more effective for the individual's style and behaviour. The *I* or 'intelligence' in ITS comes not from programmed subject expertise but from the ability to determine learner's needs and to implement a personalised tutorial dialogue (Burkle, 2001; also see the work of J Dron, University of Brighton).

Most commonly, however, the technology involved in e-learning is just the method through which support from a real person can be provided if face-to-face support is deemed too difficult or costly. The most common forms of human support for the quality of learning experience are the help desk and technical expert, and the content expert.

The help desk and technical expert

The help desk tends to be a filtering device, a way for individuals to gain the reassurance of a real person and to get their individual problems dealt with quickly and in person. The individuals operating the helpdesk may be able to provide answers themselves (they may be subject matter experts, IT experts or understand the e-learning process in the organisations, and may have skills in coaching, counselling and advising) or they can provide access to the most appropriate individual who can provide the right answers. Most of the case study

organisations had a help desk. Helpdesks or helplines (whether you visit them in person, phone them or email them) provide answers to queries regarding the learning content, and the learning process. However it would appear that the majority of support required is with technical queries – dealing with the hard or software *eg* addressing problems such as broken links or bad addresses in hyperlinks. Williams (2000) notes the importance of resolving technical problems quickly in order to preserve the learner experience and confidence, and reduce frustration. She highlights that the 24-hour availability of online learning can lead to an expectation of 24-hour technical support, yet few organisations offer 24-hour telephone helpline support (Bonk, 2002).

CASE

A media company supports its e-learning provision with a helpdesk. Learners can contact the helpdesk staff via e-mail, telephone or in person. The helpdesk staff handle queries, problems and enquiries about the e-learning package, and provide advice on courses. They also produce regular reports on the types of queries handled, and they convey requests for new content and test the e-learning site for the development teams. They are the first line of contact for anyone with an e-learning issue. Examples of the issues handled include panic over using the IT, problems operating some of the programmes, and difficulties in choosing an appropriate course.

CASE

A financial company felt that learners needed 'handholding sessions', and needed a telephone support line to help them with queries whilst undertaking courses. During the pilot for e-learning in the organisation, the company provided each business area with an e-learning expert (from the learning and development function) who was able to answer queries over the telephone but who could also visit individuals in person and undertake demonstrations. These individuals dealt with user problems and technical issues, and also collected learner feedback on the experience of e-learning. This expert help was well received. However, some of the feedback from learners indicated that they might not have been aware of the expert support or able to use it.

CASE

Learners at a university often require substantial technical support, as they may have different systems and different capabilities. To help students the university has a telephone help-desk and an online help-desk for technical support. Over time this support mechanism has

enabled the university to compile a list of FAQs from the queries the helpdesks receive, which can help students further.

The subject matter expert

The subject matter expert is the person who understands the learning content best. In the past, with traditional classroom training, the subject matter expert has also tended to be the teacher, trainer or instructor. However, with the tailored content provided in e-learning, subject matter experts are becoming more involved in the design and development of content and online materials rather than the mass delivery of content. They can have an important role in facilitating the classroom elements in blended solutions, and in answering specific queries and providing advice relating to subject matter which individuals may have during or after taking online courses. Subject matter experts can fill in the gaps in learning, clarify misunderstandings and point learners to other sources of information (Shepherd, 1999; 2000). Subject matter experts are associated with the old behaviourist model of instruction of one to many, one-way knowledge transmission (Reynolds *et al.*, 2002).

CASE

A financial company provides blended learning solutions incorporating traditional delivery with electronic delivery via their corporate university. The corporate university has a subject matter expert for groups of related courses, and the company developed bulletin boards for course groups to enable learners and SMEs to exchange ideas

4.1.3 Control

The degree to which individuals have control over the e-learning process can affect their motivation to sustain online learning. Bonk (2002) and Clark (2001b) note the importance of flexibility, choice and control in e-learning. This involves control over: learning options and experiences such as setting the structure, content, duration and pace; interaction and collaboration; and goal setting. Control of the process can ensure the learner is an active rather than passive participant in their own learning.

Monitoring for feedback rather than organisational control

E-learning incorporates administrative functions which allow monitoring of learner progress – tracking learner registration, access and performance. Monitoring learners enables the provision of constructive and timely feedback which is another important factor in learner engagement, as noted during a study of course redesign in the USA: *'automating assessment and feedback enabled both repetition (student practice) and frequent feedback, pedagogical techniques that have repeatedly been documented to facilitate learning'* (Twigg, 2003a, p.2). It can also provide organisations with indicators of problem areas where they need to take action if progress is not being achieved. This could involve remedial teaching, additional help, counselling and guidance. Fage and Mayes (1996) note that monitoring is particularly critical where there is little direct and regular contact with learners. However, organisations should take care to avoid over-monitoring which can be perceived by learners as intrusive and may discourage e-learning. Indeed Clark (2001b) stresses that online learners should not be excessively directed or surveyed, which can be a temptation with advanced learning management systems.

> **CASE**
>
> A media company, as part of its e-learning provision, allows learners to access and take courses without authorisation and with no surveillance from their line managers. Learning is considered private and line managers do not have access to learners' progress. This caused a dilemma with a regulation health and safety course. For legal reasons, managers needed to ensure that all staff had taken and passed the course, so each learner's permission was sought to enable their scores on that course to be passed to their managers.

4.1.4 Matching provision with learning styles

It is suggested that every individual will have a preferred learning style, that is a set of conditions under which they prefer to work or consider that they learn best, or the characteristic strengths and preferences they have for taking in and processing information. There is no one right way to learn for everybody and for every situation (Sloman, 2001). A well known categorisation of preferred learning style is provided by Honey and Mumford (cited in Salmon, 2000; Sloman, 2001; Reynolds *et al.*, 2002):

- **Active learners** – learn best when involved in new experiences and dealing with problems and experiences in the here and now, they enjoy working with, and bouncing ideas off, each other, they like direct action and welcome new challenges – even being thrown in the deep end with a difficult task.

- **Practical (pragmatic) learners –** learn best when they can try out (experiment with) and evaluate what they have learned through feedback, they like to see how things work in practice, like to copy models and techniques and they are practical and down to earth.

- **Theoretical learners** – learn best when they have the time to question and explore ideas, they like to see how things fit into a pattern and are interested in the fine detail, they like structured situations with a clear purpose, they are logical, analytical and objective.

- **Reflective learners** – learn best when they have the time to think about concepts, they like to think about things in detail before taking action, they like to observe others, they like to repeat what they have learned, they are thoughtful and are good listeners.

Other classifications include: the Myers-Briggs type indicator (MBTI) which results in 16 learning styles or types; Felder Silverman's learning model which has five categories; Herrmann's brain dominance instrument which categorises four modes; Kolb's learning style inventory distinguishing four preferences; and Gardner's multiple intelligences which groups people into seven modalities (see for example Reynolds *et al.*, 2002; learnativity, 2002; and Coffield *et al.*, 2004 for a systematic review of models focusing on their reliability, validity and impact). These models posit that learners may learn in different ways.

One of the major claimed benefits of e-learning is that is can be organised according to an individual's learning style – and that learners have the opportunity to select from a 'buffet' of options. However this is disputable, and recent work now questions the usefulness of a focus on learning styles (Coffield *et al.*, 2004): *'many e-learning technologies are clearly focused, for all the rhetoric to the contrary, on high scalable means of delivery that rarely are adapted – or adaptable – to individual styles of learning'* (Greenagel, 2003). Similarly, even if one does accept the concept of learning styles, e-learning is still developing, and so e-learning content is still

heavily dominated by static text rather than graphics, audio and animation. Interaction and collaboration can be limited and slow. E-learning is perhaps not offering a buffet but a limited set menu. However, it does allow the flexibility to create individual learning pathways and provides space and time for reflection before interacting or moving on. It therefore seems, at present, to be more suited to:

● people who prefer to process by reading *ie* either visual or auditory learners

● those who need time to think before reacting

● those who prefer to deal with concepts rather than actions

● more introverted learners.

Indeed, Bonk's survey of organisations (2002) found that respondents favoured online learning for exploratory and discovery learning, student-generated content, and case study activities. Conversely, they preferred traditional techniques for group problem solving, collaborative tasks, role-plays and simulations, coaching, mentoring, and lecturing.

An individual's set of preferred conditions or learning style may well influence the type and level of support they will need with e-learning, as e-learning is currently dominated by particular learning environments. Individuals who need greater social interaction, who are verbal learners and are more extrovert, and those who need immediate responses and practical hands-on experimentation may need more support with e-learning whilst e-learning catches up and develops new ways to deliver content (including blended solutions, Harrison, 2001) and whilst these learners come to terms with learning outside their comfort zone.

CASE | A central government department introduced a study skills course called 'preparing for individual learning'. The course has three, two-hour modules and is aimed at those about to start an individual learning course or are planning their self-development. Module one helps individuals to create their own development plan, identify suitable learning methods for their preferred style and the subject to be addressed, to search for relevant courses on the intranet, and gives tips for successful studying. Module two looks at finding a place to study and points out the potential difficulties of learning at one's desk, planning the study time, ways to overcome obstacles to learning, and how to get support.

4.2 Interaction

Bonk (2002) notes that many vendors define e-learning as *'learning void of human guidance'* (p.27) and that much e-learning is perceived to be *'training involving learners interacting solely with the computer, not an instructor or one's peers'* (p.82) which he feels is wrong. He, like many other commentators, argues that the human presence is necessary and perhaps even more important in e-learning.

> *'An interactive learning programme, completed in isolation from human contact, is not appealing to some learners; especially the more sociable and less disciplined types. It often requires tenacity on the part of the learner to succeed and so for many it will work best in an infrastructure of mentors, milestones and human interaction, in other words: blended learning.'*
>
> Harrison, 2001, p.4

> *'With all the movement to technology based learning, human interaction and sharing could be at risk. If e-learning does not have a human element – if people do not have opportunities to meet each other and work with each other, face to face or online – we may not like what we'll get. With any new revolution the challenge is always not to throw out 'the baby with the bathwater'. In a technological world, we must continue to preserve the people-centric nature of learning.'*
>
> Rosenberg, 2001, p.308

> *'Even in a world where many people will have at their fingertips all the information and communications possibilities necessary for any educational purpose, there will still be a need for the support and friendship of other people, the humour, the smiles, the concerns, the human contact, in addition to what can be provided through the "machine" and through the written word.'*
>
> Mills, 1996, p.85

> *'Learning is social. Even in the classroom, lots of learning takes place informally, between students. Workers learn more at the water cooler and in the coffee room than during classes. Learning requires more than exposure to content. Most people drop out of 100% computer-led instructional events … Computers can make aspects of learning more convenient but they don't eliminate the need for human intervention.'*
>
> Internet Time Group, 2002

Organisations can provide the human element to e-learning however support can also come from outside the organisation – from the learner's friends and family, from the learner's professional affiliations, and from the e-learning content or systems providers. Human support via organisations can be provided on a formal or informal basis. It can be provided:

- in person (face to face)
- online in real-time sometimes with visual or audio cues but often with text (synchronous), through tools such as text chat, chat-rooms, electronic whiteboards, computer mediated communication or conferencing, audio or video conferencing, and online tutorials and application sharing
- online but with a time delay (asynchronous) through tools such as e-mail, bulletin board, lists and threaded discussion.

However it is provided, support from real people in e-learning involves a range of different people providing different services or types of support. Real people are considered essential to the success of e-learning. Therefore, organisations need to ensure the human side of learning is not overlooked when implementing e-learning and should provide access to individuals who will:

- support learning in new *environments*
- support the new *ways of learning eg* knowledge creation.

This will create new roles and demand new sets of skills from those involved in training and development in organisations.

4.2.1 Supporting learning

E-learners need real people to support and encourage their learning, to help them cope with course materials, and with administrative, personal and affective issues (Bailey *et al.*, 1996). However, it is argued that the technology or connectivity involved in e-learning allows learners to connect and interact with a range of individuals rather than preventing this:

> '*The WWW provides a medium for collaboration, social dialogue, interaction and communication where learners can learn both formally and informally through interactions with other.*'
> Lockwood and Gooley, 2002, p.150

The technology provides them with access to human support for the learning process, and access to the social element considered essential to any form of learning.

Salmon (2001) notes the support and actions of real people could turn experiences from disappointment, disengagement and disillusionment to highly productive learning. Similarly, Bourner and Flowers (1997) in their discussion on the future of higher education refer to Naisbitt's conclusions that increases in technology in education create a compensating need for more of the human touch. They feel that without this human element the widespread adoption of technology may be rejected.

Support for the learning process can be provided through tutors.

The tutor

The tutor is the person who formally provides individual one-to-one support to a learner across a range of subjects and knowledge areas facilitating metacognition (reflecting on learning activities and outcomes), acting as an assessor (providing feedback) and process facilitator (supporting learning strategies and study skills). A tutor in e-learning, in a virtual environment, differs from a traditional lecturer, trainer or face-to-face tutor. E-learning tutors manage the effectiveness of training, facilitate understanding, and provide support for learning in the new environment using new means of communication and interaction, rather than providing support for content and development of materials (Sloman, 2001; Epic, 1999d). As such they tend to be skilled in coaching, advising, and facilitating learning rather than instruction in a particular area. They also need to respond to the challenges of virtual environments, which are *'the absence of non-verbal clues, the use of text as the main means of communications, and the constraints imposed by technology'* (Cornelius and Higginson, 2002). As Collinson *et al.*, (2000, p.1) note:

> *'in the virtual world, there is no body language from which the instructor can gauge the interest of participants and, consequently, adjust the tone or pace of the presentation. So accommodations in voice, style and expectations must be made to support virtual facilitation.'*

As outlined in chapter two, it could be argued that the need for tutors has diminished in e-learning as individuals build their own learning programmes. Conversely, it could be argued that the need for this kind of support may be seen to have increased as learners pick their way through the mass of opportunities open to them. Canning (2002) feels tutors have an important role to play. He notes in his study of a technology-based management programme in Scotland that:

> '… the most important resource available to the student was not the technology or indeed the peer group support but rather the expertise and guidance offered by the tutor. The more distant the learning the greater the demand there was for a more personalised tutorial service.'
>
> <div align="right">Canning, 2002, p.41</div>

Flowers and Reeve (1999), in their discussion of technology in higher education, also note the importance of – what they call a 'good educator' – in the learning process. They acknowledge '… *the vital part that academics play, at their best, in creating a sense of excitement within the academic process and providing the intellectual excitement and stimulation that is so important to students throughout their studies.*' (p.7). However, they note concerns that the online environment will not allow this excitement to be transmitted.

Examples from case study organisations highlight the importance of tutors. They illustrate the need for tutors to be flexible and responsive, but indicate how tutors can quickly become swamped. This indicates the importance of managing learner expectations, perhaps through published service standards: *'Learners need to know exactly what they can expect in support, how to interact with the institution, what is expected of them, and how to determine when they need assistance'* (Hughes, 2004).

CASE

The postgraduate teacher-training course at a UK university requires a dedicated person to look after the online materials. The tutor notes that she spends about seven hours a week online with the learners, responding to questions and moderating discussions. She always tries to respond to learners within 24 hours. She sees her role as one of keeping the students motivated and involved in discussions.

An e-learning expert and academic in the UK warned against the overloading of tutors in e-learning that can come from the temptation for students to fire questions at the tutor. Tutors therefore, need to get together and form guidelines for students so that there are clear boundaries and expectations. If students do not get responses quickly they become frustrated so it should be made clear how often a tutor will log on and how often the student is expected to log on. Even things like a tutor being clear when they are going away for a week can help reduce the frustration of students. Students also need to be aware that tutors are guides and are not there as a constant source of information.

4.2.2 Supporting knowledge creation

Through interactivity e-learning can also create and provide access to knowledge bases (Epic, 1999a). The technology also allows learners to move e-learning from instruction or knowledge transmission to knowledge creation or transformation (see chapter one) and this form of e-learning requires further support.

Individuals engaging in this form of e-learning will need support (both technical and social) and encouragement to interact and collaborate – they need a *guide on the side* or *friend to the end* rather than a *sage on the stage*. They will need some initial help with getting to grips with being an active rather than passive participant, with creating rather than just receiving knowledge, and with navigating new uncharted paths. Indeed, Williams (2000), in her review of teaching and learning online, notes that learners will need support to embrace the new learning culture of collaborative learning. Individuals may well be more used to competition than sharing, and so learners here will need an advocate to overcome fears and encourage trust and risk sharing. They will also need to get used to the more permanent and visible nature of contributions to learning communities and possibly overcome fears of looking stupid. This support could be provided by an e-moderator, and to some extent, through other learners.

The e-moderator or facilitator

This is a phrase coined by Gilly Salmon (2000) in her work on CMC in education and particularly in the Open University. She notes that individuals need 'champions' to bring learning alive

when learning online with networked technologies and she calls these champions e-moderators. E-Moderators guide online learners to construct knowledge for themselves through interactions with others, therefore they are neither teachers nor experts but facilitators. Salmon notes that activities of e-moderators could include: welcoming and encouraging participants, monitoring progress and providing feedback, convening and facilitating online tutorial sessions, and, particularly key, moderating online discussions.

They are skilled at guiding networked (many to many) communications between learners so that individuals can create knowledge and learn from each other. These individuals are therefore associated with the new constructivist model of learning (see chapter one). Their role has been enabled by the connectivity and the communications technology inherent in e-learning. However, as Cox *et al.* (2000) note in their study of the Open University experience, the role requires new skills and attitudes:

> *'The role of the online tutor-facilitator is unique. In an environment where technological change is daily and understanding of student learning online is in its infancy, sometimes the expectations are paramount to herding cats through Piccadilly Circus. Online tutors use some of the traditional skills of teaching and group facilitation but more significantly the role requires a wholly new range of skills that arise from the cyber-dynamics of the online world, … CMC supported courses are creating a new role for the online tutor who is pivotal to the course experience. To retain and develop them they will need to be nurtured, trained and supported … this new adventure is largely yet uncharted. The spirit of an explorer and risk taker must reside within the tutor who is to guide learners through this new landscape.'*

They feel this role should be recognised as a facilitator not moderator, as moderators control and facilitators co-ordinate interaction.

Epic (1999d) however describes this role as an administrative one, managing the process of online learning and undertaking such activities as scheduling courses, setting up learner groups, and assessing progress. These individuals are also online tools experts, as they know technically how to use the tools (*eg* bulletin boards), can moderate synchronous (real-time) and asynchronous

(elapsed time) events, and can provide technical support in the use of these tools. Bonk (2002) however talks of the pedagogical roles of 'instructors' some of which overlap with our picture of an e-moderator. Here 'instructors' create problems and ask questions, foster peer interaction, build debate, provide feedback and encourage student knowledge generation. He posits that the role of the instructor (or as we describe, the e-moderator/facilitator) is:

> *'to nurture student generation and sharing of information, not to strictly control the pace and delivery of it. A key goal of more active and engaging online experiences is to apply expertise and experience of the different participants or learners to a group problem situation that helps them achieve something that they could not before'.*
>
> Bonk, 2002, p.84

Similarly, Reynolds *et al.* (2002), in discussing the new role of the training and development practitioner, note:

> *'Increasingly they may find themselves serving as supporters and facilitators of learning rather than as providers of outside knowledge; instituting processes that tap into individual and group knowledge rather than organising training courses; and identifying learning communities in order to support them more effectively'.*
>
> Reynolds *et al.*, 2002, p.33

A view supported by Collison and colleagues:

> *'To make room for collective grappling with ideas, the moderator of the discussion must take a stance that keeps him or her outside the centre of the conversation. As the 'Guide on the Side', a moderator facilitates the forward movement of the dialogue and helps participants, both individually and collectively, see their own ideas in new combinations and at new levels of significance. This process has been described in the literature as facilitating a community of learners who are engaged in inquiry'.*
>
> Collison *et al.*, 2000, p.10

The fellow learner

E-learning has provided connectivity and interaction to enable the creation of virtual cohorts, and has made more visible and accessible a whole new side to learning – that of knowledge

creation and learning from each other. Bonk (2002) found in his survey of organisations that learners want the opportunity to communicate with fellow learners and they want collaborative learning experiences. He recognises the importance of an individual's peers in providing online learning support through 'online learning communities'. Here the tutor, facilitator or expert becomes a co-learner, working alongside other learners (and becoming *a friend to the end*) to create knowledge (Jones *et al.*, 1997).

CASE	An e-learning provider produced a learning support website to support its blended learning solution for leadership development in senior civil servants. This provides a place for online discussions and for learners to pose issues. It ensures that individuals are not just left to get on with the learning programme on their own. It provides them with access to informal peer to peer support, and has the feel of an exclusive club.

4.2.3 Building in interaction through 'blending'

The organisation can also provide the human side of learning by combining independent online study with more traditional (and accepted) forms of learning delivery – providing a 'blended' learning programme. Building classroom sessions into e-learning strategies marks a move, or pendulum swing, away from a totally online solution to learning and towards a more co-ordinated and integrated e-learning solution (Rosenberg, 2001; eLearnity, 2000). Indeed Knowledgenet notes that the ultimate e-learning experience will have:

> *'taken the best of both worlds and leveraged the latest technologies for mass distribution regardless of time and geography barriers, all the while preserving the intimacy and effectiveness of personal instructor led training'.*
>
> Knowledgenet, 2001

Mason (2002) in her work focusing on open and distance learning in the Open University, found that learners value face to face sessions and can object to online tutoring if it is perceived as a substitute for face to face meetings. Classroom or face to face sessions (in an integrated programme) can therefore be used to:

● demonstrate organisational commitment to learning

● overcome learner fears of isolation

- overcome learner fears of the technology involved in online learning (Sloman, 2001)
- teach particular skills or particular individuals not suited to an online environment (NEC, 2000)
- provide milestones along the path to learning (Harrison, 2001).

Conversely, online activities can be used to support more traditional classroom-based learning, coaching or on-the-job instruction. By embedding e-learning in a programme it can be used to: present materials that can prepare individuals for sessions; provide additional communication spaces before, during and after courses; offer opportunities for post-session refreshers or reminders; and information to the desktop to allow learners to master and apply the learning content covered in the classroom sessions (see Jolliffe *et al.*, 2001 for an examination of tools and mechanisms using web and Internet technologies to support a face to face learning event).

Bonk (2002) found that many organisations (53 per cent of those he surveyed) use web-based learning as a supplement to traditional instructor-led courses, and that few (one in five) use it as their sole source for learning.

CASE

A financial company used to provide and manage its e-learning separately from its traditional training, but moved to provide blended solutions. In this way the organisation can provide content in the most appropriate way (or through the most appropriate delivery channel) both for the learner and for the content. The organisation currently offers eight completely blended programmes for staff through its company 'university' which is accessed via the intra- and Internet and has a series of faculties that are aligned to business units eg the IT and sales faculties.

CASE

A media company originally only offered face to face courses but several years ago built a range of PC-based courses (mostly standalone courses for technical skills). However, these PC courses were not really used and the company was forced to re-evaluate its online provision. It re-branded and re-launched its e-learning and supported this with a team of 'online coaches', based in offices, who promoted the new system as a compliment to the face-to-face courses. They now offer blended learning solutions through their intranet, combining traditional training and development opportunities, and online opportunities; offering learning via modules

online, via workbooks, work-shadowing, or through face-to-face teaching / workshops. Online learning is now seen as just one way to pick up skills and they now talk about learning rather than e-learning. They see the future as being able to offer totally blended courses where the learning experience is seamless for the user.

4.3 Providing time and space to learn

> '… employees are learning with little or no formal dedicated learning time … The most important issue to consider when looking at where and when the learning is done is to imagine how much more might be learnt and how much quicker the learning might be accomplished if some dedicated learning time was made available to staff.'
>
> Skillsoft, 2004, p.15

One of the benefits of e-learning is also one of its potential barriers – that of taking learning out of the timed classroom session and making it available any time and any where that there are learners and computers (or in the future that there are mobile technologies). Learning is now available directly in the workplace and at the desktop, which means it is available in the place that it is most likely to be applied. However, it also means that it is likely to be left to the individual to find time to learn, and that the learning is provided in the heart of a busy and distracting environment: *'workplace learning doesn't offer the luxury of a complete switch-off from distractions'* (Sloman and Rolph, 2003, p.10). Individuals may therefore feel they are too busy and have no time to learn (Rosenberg, 2001; see also section 3.2).

> 'One of the most difficult parts about learning at your desks is the constant interruptions by those working around you. There's a perception that online learning can be interrupted, without much consequence. However the reality is that once a learning is interrupted several times, retention falls and the number of learners who will complete the program dramatically lowers. Similarly, if a participant feels they need to work after-hours in order to complete a program, they'll grow to resent the medium.'
>
> Hofmann, 2003

Thus for e-learners to have a positive experience, they need to be provided with the time and space to fully engage with the e-learning opportunities, to avoid disruptions and to concentrate on learning. To address this potential (real or perceived) barrier, organisations can adopt a range of mechanisms. One of the most

commonly cited is the learning resource centre. These were developed in the 1990s to support computer-based training (a forerunner of the e-learning we know today).

> *'Although the desktop may be the favoured location, remember that this is becoming an increasingly busy environment as more and more services are being delivered to the screen. On top of the standard office applications, the Internet brings us massive amounts of information and services, and email threatens to overwhelm us. With telephone and physical interruptions as well, the user has to be very disciplined and must use their time effectively. Open learning centres and dedicated learning stations allow one to get away from the distractions of the normal work environment.'*
>
> Epic (1999b)

However Reynold *et al.*, (2002) feel space is more than just about learning resource centres:

> *'There is no doubt that the nature of the physical setting has a significant effect on learning in organisations. Factors such as privacy, quiet, temperature and related ambient and aesthetic issues clearly affect the degree to which an individual can concentrate on learning activities. Yet the most profound influences of physical space on learning may be more subtle. One's sense of centrality to the core of the organisation, for example, can impact on esteem (and hence eagerness to learn); and, most crucially, the degree to which the space affords social contact among employees. By arranging space in ways that foster a sense of physical connectedness, socially conscious building design can create fertile conditions for informal learning and team development.'*
>
> Reynolds et al., 2002, p.42

It would appear that learning centres are appreciated, and almost all of our case study organisations had them. They provide the resources and a quiet place, away from the pressures of work, for individual study which can be booked (and therefore planned for) in advance. They also offer a social environment for learning and can provide access to fellow learners and some form of expert support. They are useful in organisations where not all individuals have access to a PC, for staff that work in open plan offices or in intensive 'shifts', or for courses that require longer periods of interactivity. Indeed, Sloman and Rolph (2003) identify that call-centre staff, non office-based local government

staff and customer-facing staff may face particular difficulties accessing e-learning as the nature of their jobs keeps them away from a computer. However, Schmoller and Jennings (2005) in their work for the TUC, note the importance of making sure these centres are available to shift workers and other staff with non-standard attendance.

<table>
<tr><td>CASE</td><td>A central government department has a policy that stresses easy access to learning. It has five static learning resource centres, each with an individual responsible for learner support; and a mobile learning centre, which travels the region visiting and staying with offices for up to three weeks. They feel that the resource centres allow people to be able get away from their work to learn. The computer equipment in the resource centres is of a higher quality and capacity than the majority of staff have on their desks – so can also provide a better quality learning experience. The department finds that the resource centres are very popular, although they are not greatly used by those in senior positions.</td></tr>
</table>

<table>
<tr><td>CASE</td><td>A financial company provides e-learning opportunities not only to learners' desktops but also through learning centres. These learning centres are open 24 hours a day, seven days a week, and are particularly useful for call-centre staff to provide them with the space to learn without interruption.</td></tr>
</table>

<table>
<tr><td>CASE</td><td>A central government department worked hard to provide access to a PC for all staff. However where staff do not have their own PC, e-learning courses are provided via learning resource centres. These are quiet rooms designed as individual learning study areas. They are felt to provide an environment where individuals can concentrate without interruption, as there would be times that learning at the desk would not be easy, especially for longer and more intense (and perhaps not so immediately relevant) courses.</td></tr>
</table>

<table>
<tr><td>CASE</td><td>A media company has training rooms at all of their sites that can provide individuals with a quiet space to learn. These rooms also house video learning terminals, which deliver more media intensive courses, which could not be provided via desktop PCs.</td></tr>
</table>

Learning resource centres, although providing privacy and focus, remove the immediacy (just in time) of learning. They also move learning away from the place of its application which is

particularly important for some forms of e-learning, such as performance support (see chapter one). Surveys have shown the desktop to be the favourite location for e-learning, either because, or in spite, of the potential for interruption (Skillsoft, 2004; Clark and Hooley, 2003; Masie in Sloman, 2001; Epic, 1999e; TechLearn Trends, 2000). Interestingly, Reynolds *et al.* (2002) argue that the distractions that occur in the workplace are not necessarily a bad thing. They suggest that distractions, which are a product of the normal working day, may *'represent real opportunities for dialogue, discovery and learning among employees'* (p.41). The researchers note that this potential has been overlooked by many training advocates, who tend to view distractions as barriers to, and not opportunities for, learning (see chapter three for perceived barriers to e-learning). Indeed, many of our case study organisations offer a mixture of quiet spaces for learning and learning at the desktop.

> **CASE**
>
> A financial company feels it is important to understand and recognise how people learn, and work hard to keep in touch with its users to understand who the user is and what their needs are. The company undertakes a staff survey every year and holds regular focus groups. It has found that staff prefer to learn at their workplace, in the branch. It found that the most popular learning method, with 88 per cent, was learning face-to-face, on-the-job, followed by e-learning on stand-alone PCs (70 per cent), face-to-face away from the workplace (65 per cent), and via the intra- or Internet (40 per cent). Staff prefer learning in the branch as training away would put pressure on their colleagues, however training on a standalone PC means that staff can learn without interruptions.

> **CASE**
>
> In a media company, when learners log on to an online course at their desktop PC, the course takes over their entire screen and cannot be minimised or closed. In this way they cannot be interrupted by emails or be distracted by other programs.

Another mechanism for providing space is some form of indication or signal that will deter colleagues from interrupting, such as a do not disturb sign, or a 'caution' tape similar to that used in crime scenes! However, these visible indicators must, as Naish (2002) points out, be backed up by a policy which sets out what is an acceptable amount of e-learning and in what circumstances a learner can be interrupted. Another way to provide space is to provide support from the line manager. The

line manager can provide access to resources and can create space in an employee's work-schedule to dedicate to learning, perhaps through 'learning contracts' (Sloman and Rolph, 2003, see section 5.2). More formal and wider support across the organisation can also be provided through formal learning agreements setting out the extent of paid learning (*ie* working hours) and which types and levels of learning are covered (*ie* learning towards a recognised qualification, basic skills, work-related / essential skills) (Schmoller and Jenkins, 2005).

Results from a small survey of e-learners indicate another mechanism to avoid distraction. Here one third of those interviewed were learning at their desk but were learning outside of their normal working hours — before their day started or after their working day had finished (Skillsoft, 2004). Yet another is to move the learning out of the organisation altogether and provide e-learning opportunities at home. This can be achieved by providing employees with home computers. However, both these strategies are heavily reliant on strong learner motivation, and may send negative messages that the organisation does not recognise, support or value learning during work-time (see section 5.1). They may therefore be more suited to learning that is not directly related to job performance:

> *'There is a risk that some organisations could exploit the flexible nature of e-learning … instead of giving the workforce time off for attending training sessions, an employer could maintain workloads and expect staff to make time for learning outside of normal working hours, possibly from home.'*
>
> Schmoller and Jenkins, 2005, p.16

4.4 Summary

To sustain motivation and engagement with the e-learning process, the learner needs to have a positive experience. There are several key elements to this that an organisation needs to take into account when planning support to sustain e-learning. These include:

● ensuring good quality content that meets learners' expectations and needs, and is provided in a clear, logical manner – setting out what is expected of the learner. User testing and satisfaction surveys can help organisations to design effective courses and virtual learning environments

- offering learners a degree of control over their experience, where appropriate, allowing them to set the pace, duration and most importantly goals so that they become an active participant in their own learning

- providing learners with some degree of feedback on their progress whilst allowing organisations to spot areas where intervention may be necessary. Care must be taken not to make learners feel scrutinised, particularly if they are feeling vulnerable (*ie* lacking in skills)

- acknowledging additional support may be needed for learners who may prefer, or be used to, learning in other ways than those afforded through e-learning

- providing the right environment for a learner to focus and maintain concentration. This may involve:

    - the options of a dedicated area for learning (learning resource centre) and learning at the desktop

    - cues to minimise disruption in the work area such as visible signs 'e-learning in progress' or 'do not disturb'

    - line manager support to plan, and release time, for learning

    - making computers accessible outside of working hours and providing computers for home use.

However, above all, and despite initial thoughts to the contrary, e-learning is still dependent on human support. E-Learners will still need someone to guide their learning, answer their technical and subject-related queries, and share their learning experience. Organisations can provide this human interaction by blending online activities with traditional and accepted forms of learning; and by providing access to appropriate experts and fellow learners.

As organisations gain greater experience in providing and generating e-learning opportunities (and in collecting learner feedback), they should be able to develop better quality and more accessible content and therefore provide effective system support to e-learners. Also, experienced e-learning organisations will be able to develop dedicated support personnel such as tutors, moderators and mentors; and will have a resource bank of experienced e-learners to help promote e-learning and to provide support to other learners.

5. Completion and Beyond: What Support is Needed?

This third and final stage is also a critical one both for the e-learner and for the organisation. It concerns maximising the learner's experience and moving them on – beyond the screen – to develop further and apply learning (*eg* Naish's 'after' stage and Nixon and Salmon's development phase – see chapter three). More specifically it involves:

- providing the learner with further opportunities to engage in learning and helping them access these, particularly to gain access to opportunities beyond those needed or deemed necessary for the individual's current job. Line managers have an important role to play at this stage, as they may well act as gatekeepers to further learning opportunities, and therefore can give individuals the authority to access learning. However, organisations could consider enabling people to access learning resources as easily as possible by removing the requirement for managers to authorise participation.

- providing the learner with opportunities to apply their new knowledge in their work, and opportunities for the individual to be able to practice their new skills. Again line managers and senior management are critical to this process, acting as sponsors of learning.

- providing learners with support to plan their development. At this stage learners become responsible for their own learning but they may need a mentor or coach to provide support. Rather than help them with the online learning process this support can encourage e-learners to continue to learn, and help them plan their longer term development and select the most appropriate learning opportunities. Indeed, Bailey *et al.* (1996), in their

discussion of open and distance learning, see careers education and guidance, and profile planning as an important element of learner support.

<table>
<tr><td>**CASE**</td><td>A central government department, as noted above, introduced a study skills course 'preparing for individual learning'. The last module of this course focuses upon 'using your learning'. The study guide notes: *'completing a training activity or a programme of studies is not an end in itself. The skills and knowledge you've learnt have to be used in your professional or personal life to help you perform a certain task or role'.* This last module helps individuals to evaluate their learning, to find opportunities in the workplace to consolidate their learning (and advises working with line managers), and to continue their development.</td></tr>
</table>

To allow this to happen, the organisation needs to develop a learning culture that recognises and values e-learning – allowing learning to take place and enabling learning to be applied. As Naish (2002) notes:

> *'people are supported in the application of this e-learning by the organisation's management, processes and structures … It is not enough to have a training policy, which states that people can use e-learning during working hours; the learning culture created and enforced by top-level management must ensure that people are, in practice, allowed to use e-learning at work … once the new knowledge and skills have been learnt, there needs to be a learning culture that actually allows the learner to use these new skills. Again, top management need to "walk the talk" on this one and show that they are open to new ways of working and continual improvement of the "ways we do things". The e-learning budget has been wasted if people go back to work and get remarks thrown at them like "we don't do it like that around here" or "have you just been on a course? Why don't you just go back to acting normally again?"'*

Naish, 2002, p.19

5.1 Building an e-learning culture

The organisational culture is the environment within which learners will be engaging with online learning at work. This is the set of traditions, values, policies, beliefs and attitudes which are manifested in stories, symbols and power structures (Reynolds *et al.*, 2002).

In order for e-learning to thrive, there must be a shared set of real values, beliefs and attitudes that are demonstrated throughout the organisation from the top to the bottom (or the bottom to the top), that recognise learning, learning at work, and learning via new technologies as a positive and useful activity to individuals and the organisation.

1. **Learning as a useful activity:** learning, through whichever mechanism, must be valued. As Rosenberg notes**:**

   'Too often companies invest in new technology only to find that the existing culture won't support it. For e-learning to be successful, the culture must get beyond lip service to recognise learning as a valued part of what people do – a productive activity and not a waste of time … a strong learning culture is required. It's not just a climate that supports classroom learning or e-learning, but one that embraces learning as a whole – as an important activity of everyone in the firm. Organisations that are truly "learning organisations" quickly move beyond the "where" and the "how" of learning, concentrating instead on ingraining it into the work culture.'

   Rosenberg, 2001, p.180

2. **E-learning is real learning:** e-learning must be perceived as real learning, not just as a cheap alternative to classroom training, and valued in its own right. Indeed, individuals should be able to understand why people should engage in e-learning, and why they, in particular, should engage in e-learning. Meredith and Francis (2001) note in their study of an online learning programme that one of the two key challenges to e-learning in an organisation is legitimacy: *'Is working on web-based learning a legitimate use of work time?'*.

3. **Learning is work:** Canning (2002) in his study of an online vocational management course concluded that it is crucial that an organisation provides a culture which is conducive to learning and feels that efforts in this direction can be hampered by a general association of learning with either academic institutions and classrooms rather than workplaces (see also Rosenberg, 2001) or with training centres rather than offices (Clark, 2001b). For e-learning to succeed in organisations, working must be regarded as learning, and learning must be regarded as working.

Rosenberg (2001) describes an ideal learning culture as one which:

- *'encourages knowledge generation and sharing, supports an atmosphere of learning from mistakes, and assures that what is learned is incorporated into future activities, decisions and initiatives of the firm'* (p.14) and

- *'where leaders seek not just to offer training courses, but rather to demonstrate a clear linkage between learning investments and business strategy'* (p.13).

Aspects that could help towards building an e-learning culture are described by Rosenberg (2001). Many of these involve motivating learning and removing barriers to learning and are discussed in greater detail in chapter three. These include: making e-learning a part of everyone's daily work activities and encouraging all employees to spend some time each day online; building processes of personal development; rewarding knowledge sharing (whilst continuing to recognise experts); providing quality learning products; certifying improvements in learning; providing monetary incentives for learning (in areas considered important to the organisation); encouraging individuals to teach others; providing access to training where it is needed in the organisations rather than where it can be afforded.

Thus organisations with a strong e-learning culture will have few barriers to learning, will encourage and provide access to a wide range of learning opportunities beyond the individual's immediate job role, will recognise e-learning in all its various applications (instruction, performance support, and knowledge construction or learning communities), and will have visible managerial support for e-learning. Although it should be noted here that sub-cultures can, and frequently do, occur in organisations, and Lea (2002) notes, *'the critical strategy for effective e-learning must surely be to recognise the different cultures of learning between and within organisations'* (p.26). Whilst one part of the company, or one department, may be wholly supportive of e-learning, another may not recognise learning online in the workplace as real learning. This will affect individuals' motivation to learn (see chapter three) and their access to e-learning opportunities.

CASE | The learner booklet which accompanies e-learning provision in a central government department notes that their e-learning: *'is an approach to development that emphasises the importance of lifelong learning, and it recognises that we all have a great potential for*

> *learning and for changing what we do … [it] gives you more control over your own development – not only in the way you study but also what you study. Nobody has a better idea of how you want to develop than you, so [it] aims to make it easier for you to achieve your goals'.* The document stresses that e-learning in the organisation is about access to learning opportunities, improving the quality of learning experiences and encouraging a culture of self development.

On the other hand, individuals attempting to engage in e-learning in an organisation (or department) with a weak learning or e-learning culture will find it akin to swimming upstream. They will require substantial support to overcome the cultural barriers such as equating real learning with the classroom or training centre and with educational institutions rather than the workplace and the desk. They will also require support to overcome the associated resource barriers such as restricted access to learning opportunities and restrictions on time and space to engage in training with no interruptions and distractions. These aspects are often controlled by individuals further up the organisational hierarchy.

> **CASE** A financial organisation, through its surveys of staff, has found that there is not only a corporate culture and a business unit subculture but even a building culture. So attitudes towards learning and e-learning can depend on 'where' you are working.

5.2 Importance of management

A key part of creating an e-learning culture is the visible and concrete support of senior managers. Rosenberg (2002) notes that they can provide the 'legs' that ensure that momentum for e-learning is maintained and that e-learning is accepted as a natural part of everyday work life. Line managers' real support and involvement also ensures initiatives are properly resourced, financed and timetabled. He suggests making managers formally responsible for the learning of their employees (through job descriptions and appraisals). Epic (1999b) too recognises the importance of senior management noting that *'support from senior management can mean the difference between success and failure'* (p.2). Harris *et al.* note in their work in further education that lack of effective leadership could lead to a *'lack of understanding (and vision) of what e-learning could do for their particular organisation, with insufficient recognition of the resources required as well as poor*

understanding of what e-learning can offer more generally resulting in strategies, plans and funding arrangements that do not exploit e-learning' (Harris *et al.*, 2004). Thus if these senior level individuals are shown to value and care about e-learning, others in the organisation will be more likely to value e-learning too.

<div style="border:1px solid black; padding:10px;">

CASE

A financial company has found that online learning was readily accepted in some areas of the business, especially within the IT population where there has been a long standing contact with e-learning. Areas with a more open-minded view to learning were finding that e-learning worked and could see what they could get out of it. In some cases, e-learning was regarded as a support mechanism for an individual rather than as a standalone learning experience. However, some areas of the business were not ready for this type of learning; and in these cases management was creating a barrier to e-learning by not allowing staff the time to conduct their learning. The company are working hard to overcome some of the cultural barriers to e-learning by educating managers.

</div>

5.2.1 The line manager

Line managers also have an important role to play in supporting learning, and particularly supporting e-learners. They sanction participation in e-learning, providing access to resources within (and outside of) the organisation, as many organisations still require managers to authorise attendance on courses (even those taken online). They stimulate interest in learning through creating a learning sub-culture where learning is regarded positively rather than as an intrusion to work. They provide encouragement to participate through the provision of rewards (not just financial or career rewards) and recognition of achievement. Line managers provide opportunities for learners to apply and test out their new learning in the workplace. They can also provide the space and time to engage in e-learning by freeing up workers' schedules and providing quiet spaces to learn.

Rosenberg (2001) notes the importance of line managers in e-learning especially in relation to creating a culture which encourages and values e-learning.

'Managers have a major role equal to that of the employee. They can meet with people before and after key learning events, helping them integrate new skills, knowledge and ideas into the workplace. And they can foster their own small learning organisation by

providing time for sharing and discussion of ways to improve everything from morale to productivity. Build requirements for people development directly into managers' job descriptions and appraisals, and provide training for them on how to make this work.'

<div style="text-align: right">Rosenberg, 2001, p.185</div>

COMMENT A consultant with an e-learning provider noted that there is a difference between formal and informal support for e-learners. Formal support can be compromised by restricted availability, costs, and poor quality, so informal support, people helping each other out (peer to peer or learner to learner), becomes more important. He feels the most important e-learning support is provided by the line manager, and that this is probably informal. Line managers provide the space, opportunities and encouragement for individuals to e-Learn. If line managers are part of the support network then it stands a chance. Organisations and e-learning providers need to sell the idea of e-learning to line managers. They really need to be able to see e-learning as important, useful and part of a person's job. They need to see their role in supporting staff e-learning as just a part of their day-to-day work as a manager.

CASE A central government department feels that e-learning requires less support than more traditional training systems, but that it still requires some support. The department's handbook for e-learners focuses upon the importance of the line manager, the Learning Advisor, the Training Designer, and the mentor who all work together to support the learner in a blended approach to learning. Here the line manager identifies development needs, helps overcome obstacles to learning at work, and helps people apply skills in the workplace. The Learning Advisor provides help with choosing a suitable learning event, the Training Designer ensures that the courses are available, up to date and are of the highest quality. The mentor provides specialist subject knowledge, advice on effective study, and helps motivate learners to sustain their learning and development.

5.3 Importance of the learning guide or mentor

'… you need a learning adviser or mentor. This person gets you in the habit of learning, and pushes you into programmes. The need for this type of support is probably no different with e-learning than with traditional learning but e-learning technology may allow different ways to communicate.'

<div style="text-align: right">Consultant, e-learning provider</div>

To move beyond the single experience of e-learning, the learner may need support to plan their longer-term development. They will need someone to guide them with their next learning steps, helping them to formulate learning goals, to decide which learning routes and options to take in order to achieve these, and to help them to assess their progress towards their goals. This role is becoming especially important with the new approach to learning where learners take responsibility for their own learning.

A learning guide or mentor can provide this support. At first glance, this role may appear to be similar to the role of tutor (described above in chapter four). However this role is likely to be less formal and interaction is likely to be initiated by learners themselves rather than by the learning process.

Epic (1999d) discusses the role of the mentor in e-learning and describe a mentor as:

'a person who takes someone under their wing, taking responsibility for their personal development within an organisation … They are expected to challenge, check and consolidate learning and also be able to counsel correctly … mutual respect, born of trust and rapport, is fundamental to the role'.

Epic, 1999d, p.1

However, it notes that in e-learning mentors have come to mean someone who supports learning online in a general sense, and as such their activities also include motivating, counselling, coaching and assessment plus providing tutorial support, subject matter advice, administration activities and technical support. Therefore, Epic sees the mentor providing the whole human support element for e-learning.

CASE
A financial company operates a network of career coaches. These individuals act as career facilitators by providing personal advice on development programmes, acting as an 'introduction' to other areas of the business thus enabling individuals to network, and setting up work shadowing opportunities. Careers coaches can be contacted via the company university helpline or through a career management intranet site.

A media company has learning advisers (previously termed online coaches) in many of its sites. These advisers meet face-to-face with staff. Originally their role was to encourage staff to engage in e-learning and use the e-learning intranet site. This changed to providing support on a one-to-one basis about learning, helping individuals with their personal development through the use of personal development plans and by looking at the courses offered and planning a structure or route through the learning.

5.4 Summary

To move the learner on from one successful experience of e-learning to apply the learning and develop further, the organisation needs to provide support in two key ways:

- through a culture that truly values learning at work and online, where:
  - learning is part of work
  - learning is recognised and rewarded
  - e-learning has senior-level endorsement
  - line managers encourage learning and provide access to opportunities
- through a network of individuals to guide further learning and development, and the use of personal development plans.

At this stage learners becomes expert users and can themselves provide support to others in the organisation, particularly to new users.

6. Conclusion: Support must be …

Finally, we draw together our conclusions about e-learner support in organisations noting that it must not be overlooked, can take various forms, but must be learner-centred, flexible and tailored to meet individual need.

> *'… in providing learner supports, we should focus on what the learner needs, not on what we want to or are able to supply, but it is surprising how easily this emphasis can be lost in our wish to help.'*
>
> Hughes, 2004

6.1 … important

Supporting learners is important, and a key success factor in perhaps all forms of learning. This is true whether it takes place within educational and lifelong learning contexts or corporate training contexts, in a classroom or at a distance using communication technologies. However, the new approach to learning that is enabled by new technologies, and the technologies themselves, require adopting a different approach to much of the support provided to learners' learning online. Table 1 indicates:

- the key support activities required
- the ways in which support can be provided
- areas where support for e-learning has similarities with support for more traditional forms of learning
- areas where more focused support is required.

Table 1: Moving from support for learning to support for e-learning – identifying similarities and differences

Support activity	Support mechanism	Required in
Encourage/motivate learning	Interesting, fun, challenging	traditional & e-learning
	Recognition, financial rewards	traditional & e-learning
Remove barriers to learning	Make time/budget, highlight need	traditional & e-learning
	Overcome fears, identify opportunities	e-learning
Marketing/promotion of learning opportunities	Provide information via PC and taster sessions	e-learning
Dealing with inexperience	Technical skills training	e-learning
	Online socialisation	e-learning
Providing a quality experience	Good content	traditional & e-learning
	Accessible content	e-learning
	Technical support	e-learning
	Subject support	traditional & e-learning
	Feedback (not surveillance)	traditional & e-learning
	Choice (to match learning style)	e-learning
Dealing with need for social interaction	Tutor	traditional & e-learning
	E-moderator	e-learning
	Fellow learners	traditional & e-learning
	Blended learning	traditional & e-learning
Time and space to learn	Learning centres/learning signs	e-learning
	Scheduled learning time	traditional & e-learning
Learning culture	Valuing learning	traditional & e-learning
	Learning as work	traditional & e-learning
	E-learning valid form of learning	e-learning
	Line manager as sponsor	traditional & e-learning
	Learning guide/mentor	traditional & e-learning

Source: IES, 2005

The previous chapters have shown that individual learners need support at all the stages in their e-learning experience. Organisations need to provide this support in order to ensure that: individuals to truly engage with the opportunities presented online; e-learning initiatives are used effectively; learning takes place and is applied; and organisations gain a return on their investment. E-learning is not a quick fix but instead needs careful implementation to fulfil its potential.

6.2 … varied

Support for the e-learner is individual and encompasses a range of activities, mechanisms, processes and signals. The very act of learning online can itself be considered a learner support mechanism, supporting more traditional classroom learning. Conversely, traditional learning methods can be viewed as supporting individual online learning activities by providing real time human contact. Organisations are moving towards blending online learning with other forms of learning delivery. This is causing some confusion, as in some instances 'e-learning' means online delivery only, whilst in others it stands for a multiple delivery channel approach to learning and training.

The processes built into systems and the actual content of e-learning could also be considered to support the learner. The system provides the opportunity to build an individually tailored learning experience; it provides online help and application wizards, lists of FAQs and answers, assessment tools to monitor one's progress, and more recently, intelligent tutoring systems which automatically adapt to learners' needs and styles.

However, many commentators stress the need for learners to interact with real people when learning online, as learning is essentially a social process. Through technological connections, learners can interact with a wider range of individuals than previously afforded by a classroom session. People involved in supporting e-learners can:

- provide subject expertise and tutorial support
- set up, encourage and moderate group learning experiences
- guide individuals to set and achieve learning goals
- direct learners to appropriate sources of advice or information
- provide technical advice and assistance on the hard- and software
- share the learning experience and knowledge gained
- encourage learning
- provide access to learning resources
- provide the time and space to learn without interruptions

This can be provided formally or informally, within or outside the organisation, in person or online.

Support to e-learners can also be provided by their immediate physical location whether at home or work, providing them with the time and space to be able to focus on learning. Learners' cultural environment is also important. An organisational culture, which places value on all forms of learning, including learning online, allows and encourages individuals to learn and to have a positive learning experience.

6.3　… individual

Support must be flexible and individual (*ie* not necessarily standardised), it can be reactive (in response to learner needs) but must also be proactive (to ensure learners do not get into difficulties). However, the type and level of support required and given to individual learners is not and should not be consistent. We conclude that no one model of support can be developed, as learners, learning and learning environments differ along a range of key factors outlined in this report.

People attempting to engage with e-learning will have different reasons for doing so, and will have different barriers preventing them or holding them back. They will have different preferences for interaction, and for collecting and processing information, and may feel that e-learning does or does not suit them. They will be using e-learning for different purposes, to quickly develop technical skills or more comprehensively develop people or business skills, to immediately help them with a specific job-related task, or to collaborate with like-minded individuals spread around the organisation.

They will be working in environments where learning online and at work is valued and in environments where the only real learning is perceived to take place in the training centre. They will also have different experiences of e-learning, from a little to a lot and from negative to positive.

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Appendix: Glossary

anytime, anywhere: see just-in-time

asynchronous course delivery: participants can only communicate with a time delay, such as self-paced courses via Internet or CD-ROM, streamed presentations, or online chats and discussion groups and e-mail

audio-conferencing: voice connection of more than two sites using telephone lines

authoring tool: an application or programme that allows people to create their own course content

bandwidth: the information carrying capacity of a communication channel

behaviourist theory: learning theory that supports the idea that knowledge is a discrete entity that exists outside the individual but can be passed one from to another

blended learning / solutions: an approach to e-learning that combines it with traditional classroom-based learning in order to ensure the maximum learning benefits

broadband: higher than standard speed transmission of information (see bandwidth)

browser: software that allows users to find and view information on the Internet

c-learning: traditional classroom, instructor-led training (bricks as opposed to clicks)

collaborative tools: they allow learners to work with others in threaded discussions, e-mail or chat rooms

computer-based training (CBT): course or educational material presented on a computer (CD-ROM or floppy disk) not requiring a network and not providing links to other resources (seems UK terminology may use CBT to cover Internet/intranets as well, so may be a broader term).

constructivist theory: learning theory that supports the idea that knowledge is created and shared

digital divide: the gap in knowledge and opportunities between those who can access computers and those who cannot

discussion board: forums on the Internet, intranets or extranets where users leave messages for other users to read and respond to.

distance learning/education: education where instructor and students are separated by time and/or location. Broader definition than e-learning

drop-out: the number of students failing to complete or finish an e-learning course, task or module. Particularly important in e-learning whilst this new method of learning is being experimented with

e-learning: a wide set of applications and processes including computer-based learning, web-based learning, virtual classrooms, and digital collaboration. *'Delivery of content via all electronic media, including the Internet, intranets, extranets, satellite broadcast, audio/video tape, interactive TV, and CD-ROM'* (Hambrecht, 2000).

end-to-end solution: a marketing term used to describe a product that will cover all aspects of the e-learning process

e-training: a subset of e-learning, refers to corporate training

extranet: a network using Internet standards to transport information to people within and certain specified people outside an organisation but not available publicly on the Internet.

face to face: traditional classroom teaching where the teacher and learner are in the same place

facilitator: an online course instructor; different from an online tutor because a facilitator guides students through course material rather than teaches them

FAQs: a list of frequently asked questions or queries; often used in e-learning as a first port of call for learners experiencing difficulties prior to calling on further support

firewall: used to give security to internal networks whilst giving users access to the Internet

integrated learning / solutions: see blended learning / solutions

Internet (international network): a world-wide network of information

intranet: a network to transport information within an organisation with security measures (such as a firewall) to stop outside access

just in time: a feature of e-learning where users can access information and learning when and where they need it

LAN (local area network): a group of computers/servers located in a small area such as an office that can communicate information with each other

learning portal: a website that offers access to learning and training resources from multiple sources

modem: allows computers to connect with one another via a telephone line

moderator: see facilitator

multimedia training: CBT which uses several types of media including text, graphics, animation, audio, video – to produce an engaging colourful programme

network: two or more computers that are connected so users can share information

online community: meeting places for learners on the Internet, designed to facilitate interaction and collaboration for sharing

common interests and needs – share a sense of community with like-minded strangers

online learning: a subset of e-learning; learning via the Internet, intranets and extranets (Internet with various boundaries within and without the organisation). Also known as web-based training. Allows links to learning resources outside of the course, *ie* email, bulletin boards, discussion groups

plug-in: a programme that adds capabilities to a main programme

RAM (random-access-memory): temporary storage for data

real time communication: communication where information is sent and received at the same time (there is no time delay between the two)

SME: subject matter expert

super-users: members of an organisation with a subject or technical expertise who can provide support or knowledge to colleagues

synchronous course delivery: real-time, instructor-led online training – all participants logged on at the same time and able to communicate directly with each other

training (learning or course) management systems: Internet-based software to deploy, manage and track interaction between learners and courses, and learners and instructors – *ie* student registration, learner progress tracking, recording test scores, indicating course completions, and assessing performance of students

video conferencing: using video and audio to allow people in different locations to communicate with one another

virtual classroom / environment: where students and facilitators interact online

web-based training (WBT): instruction that is delivered via a web browser through the Internet or an intranet. One of the most widely used