Annexes

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Annex A: E-learning Checklists

Introduction

1   This document is an essential accompaniment to *Strategic Area Reviews and E-learning,* also from the Learning and Skills Council (LSC). It contains six checklists referred to in that document, covering suggestions, information sources and case studies intended to be of use to local Learning and Skills Councils (local LSCs) when they are considering e-learning provision as an aspect of their strategic area reviews (StARs).

2   This report is of interest to strategic planning managers involved in post-16 education and training.

Checklist 1: Forms that E-learning Can Take

E-learning Blended into a Further Education Course

Discussion

3   In its broadest sense, e-learning is an element of many further education (FE) courses. The Internet is now widely used as a research tool for student assignments, through the use of search engines to find resources, to structured exercises developing information literacy, to the use of specialist online tools and databases. Educational software can be used in a library, classroom or remote setting. Support and guidance can be made available over an intranet, a college website or email.

4   Over the past few years, many FE colleges have introduced virtual learning environments (VLEs) that combine elements of discussion boards, electronic learning resources, information, tracking and assessment.

5   Learning spaces might be information technology (IT) suites, library computer points, lecture theatres, workshops, classrooms, the workplace

or home. Teachers might have use of equipment such as computers, projectors or interactive whiteboards, and software such as Microsoft Office, web authoring software, simulation models and assessment packages.

6   There are many choices in the way that all of these elements are blended to suit particular learners on a particular course.

Case studies

Case study 1: A-level English

7   A lesson at Solihull Sixth Form College is structured to make best use of a room of networked computers. As preparatory work, students survey their friends on their experiences of chatting up members of the opposite sex. They then enter the results into an Excel spreadsheet. Using web-based material as a prompt, they break into groups and role-play a conversation, record it in Microsoft Word, and share results between the groups. The process is highly interactive, tightly controlled by the teacher, and recorded as evidence of learning.

http://ferl.becta.org.uk/display.cfm?resID=1564

Case study 2: Bricklaying

8   Grimsby College offers a range of construction and building courses. They created a website containing materials from the Further Education National Consortium, along with other Internet links. They also set up a resource-based learning centre containing 6 computers, later increased to 14 owing to heavy demand. Learners can access this resource over an intranet. This was then extended so that the resource can be accessed from the workplace, from home or even from abroad. It has increased opportunities for learners to overcome barriers of illness, distance from home and work commitments.

http://ferl.becta.org.uk/display.cfm?resID=2523

Information sources

9   Here are links to case studies that take a whole-college approach to e-learning:

- Online learning in action, Derbyshire Colleges

  http://ferl.becta.org.uk/display.cfm?page=13&resID=1802

- Learnwise VLE at Stoke-on-Trent College

  http://ferl.becta.org.uk/display.cfm?page=13&resID=1333

- Getting started with a VLE – the City of Sunderland College experience

  http://ferl.becta.org.uk/display.cfm?page=13&resID=1336

- Western Colleges consortium and technical virtual campus

  http://ferl.becta.org.uk/display.cfm?page=13&resID=1359

- Distraction, difficulties, development and decisions

  http://ferl.becta.org.uk/display.cfm?page=13&resID=1688

- From strategy to practice – integrating information and learning technologies into the curriculum

  http://ferl.becta.org.uk/display.cfm?page=13&resID=1453

- Developing flexible information technology provision through the learning centre

  http://ferl.becta.org.uk/display.cfm?page=13&resID=1776

E-learning Used by a Work-based Learning Provider

Discussion

10 Work-based learning (WBL) is very diverse. Although the use of e-learning among WBL providers is not widespread, it shows a varied use of the technology. For example, some providers use the Internet to find and download information they can use to enhance existing classroom delivery. Some are using online assessments to ascertain the key skills needs of their learners or to administer key skills tests. Others will set tasks requiring learners to use the Internet to find information to help complete a task.

11 Commercial learning materials are also used, as are free ones such as the BBC's Webwise.

12 Some of these activities are seen as multi-skilling: learners are acquiring research skills, they are learning to use the Internet and email, and they are acquiring IT skills when they process the results of their research.

13   Some providers are experimenting with laptops to provide mobile computing (not necessarily linked to the Internet) and to conduct workplace assessment using electronic portfolio packages.

14   The benefits of e-learning that WBL providers identify include:

- flexibility of study for the learner over matters of place, time and rate of progress;
- increased motivation;
- meeting the expectations of today's learners that they will use the Internet for learning purposes;
- enabling providers to cater for a variety of learning styles;
- more economic delivery of training;
- fewer wasted journeys for providers who use e-software tools for workplace assessment (portfolios are held electronically and do not get lost or forgotten);
- more opportunities for people with disabilities to take part in training;
- a path to multi-skilling;
- improved retention rates;
- higher achievement;
- development of a competitive advantage, as learning is delivered more efficiently;
- more accurate and rigorous record-keeping, contributing to improvements in quality; and
- lowered barriers for people with literacy and numeracy needs.

Case studies

Case study 3: learndirect – Getting ready to learn through online diagnostic tools

15   It is estimated that over 7 million people in the UK need to improve their basic skills in some way. However, revealing these requirements remains a sensitive issue for the learner. Information and communications technology (ICT) can help to unmask these needs by providing a non-threatening, personalised environment in which learners can develop their skills.

16   **learndirect** has commissioned a set of adaptive online tools that diagnose a learner's capabilities in a non-threatening way. They provide a comprehensive profile of the learner across five levels of basic skills,

showing strengths and weaknesses. This is accompanied by an interactive learning map, which helps the learner to chart an individual course through modular learning materials.

Case study 4: learndirect – Information communications technology skills

17   Surfdirect is proving to be one of the most popular **learndirect** courses, teaching people basic computer skills. People can often hide a gap in their computer knowledge or compensate for it, and ICT can be a way of unlocking this. This lifelong learning project is deemed a great success, with a steady stream of new recruits.

> *People who have done courses are finding their jobs easier, and even more rewarding…*
>
> *Having confidence in their skills really makes a difference both to their performance at work and lives at home…*

<div align="right">Ufi case study</div>

UK Online

18   UK Online provides an Entry-level introduction to the Internet, along with follow-up information and advice leading to a higher level of attainment.

Case studies

Case study 5: The Hope Foundation

19   Set up in 1995, the Hope Foundation is a Christian charity that is based in an area of Teesside that over the years had become characterised by industrial decline, unemployment and social deprivation. These factors contributed to individuals feeling alienated from mainstream economic and social activities and from other people. The Hope Foundation's aim was to address the hopelessness felt by many people, and it began by providing basic computing and ICT courses. By December 1997, 146 people had achieved the National Vocational Qualification (NVQ) in Using Information Technology at Level 1. Completion rates for courses are very high, and trainees completing the NVQ at Level 1 have moved on to NVQs at Level 2 and Level 3, diploma courses, and higher education (HE) and subsequent degree courses and employment.

Case study 6: Newcastle United Football Club Learning Centre

20   Newcastle United Football Club runs family learning sessions every Saturday when there is no home game. The course, designed and accredited by Newcastle College, is called 'Hit the Net'. It features email and Internet-based activities with a weekly competition and prizes. The focus is on children and their parents having fun while developing their ICT skills together. The centre has a waiting list for places, which operates through its local feeder schools.

For further details, contact Phil McBride (Phil.McBride@nufc.co.uk)

Case study 7: Shipley Communities Online UK Online centres, Bolton

21   Shipley Communities Online (SCOL) runs a family learning project in partnership with two local primary schools. A four-hour course, 'Computer Partners/Learning Together', provides a gentle introduction to ICT. Students from Years Five and Six are encouraged to recruit family members as their pupils. The children become the teachers, and their parents, carers or grandparents their pupils. The sessions have proved a success, and three generations of one family now use the UK Online centre in Wrose on a regular basis.

Adult and Community Learning

Case studies

Case study 8: Partnership in action

22   The strength of the Islington ICT Partnership is its emphasis on collaboration between public, private and voluntary sectors. This has encouraged further contribution from local community groups. The Islington ICT Partnership is present in over 30 venues, including Arsenal football ground, local schools and colleges, the Citizens' Advice Bureau, small businesses and neighbourhood buildings across Islington. A local drop-in facility helps to test and stimulate interest in ICT.

http://www.educe.co.uk/pages/Showcasing%20ICT%20in%20Islington.pdf

23   The materials reflect local interests and aspirations, and quality is maintained by a common-content platform called Learneasy.net.

Discussion

The perspective from the National Institute for Adult Continuing Education

24   E-learning in the voluntary and community sector ranges along a continuum, from simple use of digital imaging, to recording progress in a craft-based class, to online distance learning for remote learners. Throughout this continuum, the e-learning element can be blended with other methods to deliver high-quality, stimulating and flexible educational experiences. This encourages development of the skills and values associated with independent self-directed learning.

Workforce Development

Case studies

Case study 9: Flexible study for members of the Transport and General Workers Union

25   The partnership between the Transport and General Workers Union (TGWU) and Manchester City College offers a range of accredited courses for shop stewards, senior union representatives, branch officers and family members. The courses are flexible enough for learning at home, online, at the TGWU education department or at the City College premises.

26   Over a thousand adults have achieved qualifications. Many have gone on to develop their careers further as shop stewards or health and safety representatives, or have just become more computer literate.

> *I don't think I would have done a degree if it wasn't for the support I received…*
>
> *With the help of the T&G I've passed my A-level in Government and Politics.*

Case study 10: The polymer industry project

27   Thanks to the polymer industry's national training organisation (NTO), up to 100,000 machine operatives could gain access to NVQs at Level 2 – at a time when their role is becoming increasingly demanding, complex and multi-skilled.

28   Levels of training are low for the 400,000 workforce, because of the dispersed nature of the industry and barriers of time and cost. Independent evaluation has shown that a tutor-supported online package has been successful, and it has won the World of Learning Conference and Exhibition award for online learning.

Case study 11: Sainsbury's Lifelong Learning project

29   E-learning is making a difference to employees at the Sainsbury's distribution centre in Hertfordshire. More than 140 employees have started courses at local colleges or at the local **learndirect** centre. Many are learning skills for life, such as reading, spelling or number skills.

30   The project identified the need for accessible and flexible training to improve staff morale, reduce staff turnover and achieve a high-quality service. As part of its commitment to staff development, Sainsbury's has pledged to provide learning facilities in all its distribution centres. Indeed, its aim is to make learning an integral part of its employment package.

Checklist 2: Characteristics of Successful E-learning

31   It is generally accepted that a number of factors need to be present if e-learning is to be successful. Each of the following factors is considered further in this checklist:

- commitment from the organisation (senior managers, other staff and learners);
- adequate network capacity (bandwidth or connectivity);
- appropriate equipment and technical support;
- appropriate learning materials;
- good support for learners; and
- staff who understand how to use technology to support learning.

32   The material below emphasises the interrelationship between all six facets and illustrates why they have to be considered and dealt with together if e-learning is to be successful.

Commitment from the Organisation

Discussion

33   There will always be enthusiastic early adopters of innovation, and the e-learning community is no exception. However, if e-learning is to be a sustainable method of delivery, it will be essential to obtain the commitment of the staff who deliver or support learning. One element in gaining that commitment will be an understanding of the tangible benefits for learners and for themselves.

34   While enthusiastic staff are fundamental to delivery, they cannot achieve a great deal without the support of senior managers who control physical and financial resources and who establish organisational policy and priorities. Senior managers, therefore, also need to understand:

- the benefits that e-learning can bring to the operation of their organisations and to the quality of the activities their learners will experience; and
- the organisational, resource and financial implications of adopting e-learning.

Information sources

35   The British Educational Communications and Technology agency (BECTa) and the regional support centres (RSCs) will be able to help with information about benefits. BECTa and the RSCs are currently developing models for assessing the cost-benefit and impact of e-learning. Although there is anecdotal evidence that e-learning has many benefits, documentary evidence has not yet been collected in any structured way.

www.becta.org.uk/index.cfm
www.jisc.ac.uk/index.cfm?name=rsc

36   The Learning and Skills Development Agency (LSDA) is another useful source of information and guidance.

37   Epic Group plc produce free briefing papers that consider a range of e-learning issues.

38   The Education Commission (an Internet-based organisation in the US) has published an outline of the 'Power of the Internet for learning'.

Adequate Network Capacity

39   Without adequate connectivity and bandwidth, it will not be possible to deliver good-quality content in a timely and responsive manner. In some circumstances (such as for a small learning centre) an ISDN line is adequate, but in others a broadband connection of at least 2 Mbps (megabits per second) will be required.

40   The RSCs, regional broadband consortia (RBCs) and metropolitan area networks (MANs) will, between them, be able to advise about what is appropriate, what is available and how to obtain it.

Appropriate Equipment and Technical Support

41   There is no ideal equipment checklist. The type of equipment required will depend on the needs of the learner, the mode of delivery, the nature of materials, accessibility considerations and so on.

42   Case studies highlighting effective management and use of different technologies be obtained from the joint FERL and BECTa website.

43   RSCs are tasked with providing technical support to FE, sixth form and specialist colleges.

Appropriate Learning Materials

44 Without appropriate learning materials there will be nothing to deliver; and without adequate quantity there will be little incentive to invest in the resources and training required to make use of e-learning.

Information sources

45 Current sources of information about learning materials include:

*   BECTa, for National Learning Network materials and downloadable resources;

www.nln.ac.uk

http://ferl.becta.org.uk

*   the RSCs;

www.jisc.ac.uk/index.cfm?name=rsc

*   the Virtual Training Suite;

www.vts.rdn.ac.uk

*   the Resource Discovery Network;

www.rdn.ac.uk

*   the list of resources funded by the Joint Information Systems Committee, which includes the items from the previous two bullets;

www.jisc.ac.uk

*   and sector bodies such as the sector skills councils.

46 The National Learning Network (NLN) has subject mentors and college-based information and learning technologies (ILT) champions who can supply information about resources for use in colleges.

www.nln.ac.uk/support.asp

Case study

47 In the college context, the Internet has an interview with the Deputy Head of Learning and Teaching Resources at Belfast Institute of Further and Higher Education.

http://ferl.becta.org.uk/display.cfm?page=13&resID=5223

Support for Learners

Discussion

48   Adequate support for learners is recognised as a crucial element in ensuring the effectiveness of e-learning. Within conventional educational organisations such as schools and colleges, support is naturally provided by teaching staff.

49   Learner support in WBL provision and workforce development might also be provided by an organisation's staff.

50   Elsewhere, various kinds of support system exist, from the formalised models adopted by **learndirect**, to the informal approaches of UK Online and adult and community learning (ACL) centres, where support is often provided by volunteer staff.

51   The important point is that there should be organised support that helps learners to find out what is appropriate for them, helps them at relevant points in the learning process and consolidates achievement.

Points to consider

52   Support begins as soon as a learner enquires about learning opportunities or is referred to them. This initial support may include offering a welcome, explaining the nature of the opportunities, and offering information advice and guidance (IAG) leading to participation. This is irrespective of the medium by which learning is delivered.

53   The next level might involve an introduction to the facilities of the place of learning and the materials or other activities and resources available, and getting started. If e-learning is a part of this, support may be needed in demonstrating the equipment, helping with simple problems with resources such as the Internet or the email system, providing advice on what to do next, and so on.

54   Specialist support may also be required in the use of particular applications, equipment or devices. The TechDis service, funded by the Joint Information Systems Committee (JISC), provides advice and guidance to FE college and HE institutions on accessibility issues. The

service also has a wide range of freely available information on its website.

55   End-of-event support considers ways in which a user might consolidate, further develop, or otherwise benefit from the recently concluded activity. Advice about progression or other learning opportunities is particularly important here for learners with **learndirect**, UK Online, in ACL or similar providers.

Staff who Understand how to Use Technology to Support Learning

56   As with any other form of learning delivery, success depends on properly trained staff who understand how to use the medium, appreciate the benefits it brings and are motivated to make use of it. Staff training is, therefore, another major aspect that organisations intending to use e-learning need to recognise and plan.

57   In the FE sector there are well-established examples of staff training initiatives, such as the FERL practitioners' programme at BECTa.

http://ferl.becta.org.uk/display.cfm?page=403

58   Other sources of information on this topic are the LSDA and the National Information and Learning Technologies Agency (NILTA).

www.lsda.org.uk/home.asp

www.nilta.org.uk

Checklist 3: Identifying Existing Provision

Discussion

59   This section looks at where e-learning activities already contribute to identified needs or might be adapted to meet them. It also considers where e-learning is likely to be introduced in the near future, and the contribution this can make.

60   The purpose of identifying existing provision is to establish the current baseline of activity. This can be matched against the target or desired activity, and action plans can then be developed. Annex B describes some findings from previous investigations of e-learning provision.

Points to consider

61   Identifying existing provision involves finding out:

- which provider organisations are using, or intending to use, e-learning;

- where such providers are located;

- areas for which e-learning is being used (subject areas, categories of learners, contribution to qualifications and programmes such as modern apprenticeships, and so on);

- whether there is any additional intended or emerging provision; and

- the perceived barriers to usage.

62   This can usually be achieved quite quickly by, for example, email, postal or telephone surveys of relevant post-16 providers such as FE and sixth form colleges, WBL providers, local education authorities (LEAs) and local authorities (LAs).

63   This could be supplemented with information from the regional development agencies (RDAs), the RSCs and the RBCs.

64   In order to ascertain the full extent of e-learning activity, the investigation might be extended to non-funded providers. This might help in deciding if, and where, to develop new or additional provision.

65   It is sometimes tempting to try to include in this exercise a map of the connectivity within the particular area under study. However, this is often problematic and impractical. A viable, easier, and usually satisfactory alternative is to ask providers what they have available. This quickly reveals any inadequacies of provision.

66   One approach is to request that providers perform a preparatory self-assessment, which can then be reviewed with them, perhaps as part of a discussion. It may be necessary to seek answers to the following questions.

- Will funding depend on the outcome of this assessment?

- Are the providers being assessed on how much 'kit' they have?
- Are they being assessed on how they use it? (This is a very different question.)
- Will they be expected to increase e-learning provision?

Information sources

67   There is a useful self-assessment tool, primarily aimed at colleges, on the NLN website.

www.nln.ac.uk/selfassessment/fento.asp

68   Colleges (in principle, but not always in reality) complete an annual ILT survey. This activity can provide profiles of provision and activity in FE institutions, such as in the report *State of ILT in Colleges, 2001*.

http://ferl.becta.org.uk/display.cfm?resID=1978

Checklist 4: Recognising Opportunities for E-learning

Discussion

69   Recognising circumstances where technology might contribute to the effectiveness of learning and training requires an appreciation of the many forms that e-learning can take, how it is used and the benefits it can bring. For example, e-learning includes some of the typical approaches in a **learndirect** centre, using the Internet in a WBL environment to gather information for project work, or off-line activities using a stand-alone personal computer (PC) in an ACL centre. Each form will have different requirements for learning materials and infrastructure.

70   One of the best ways to get to grips with these issues is to visit a variety of successful practitioners and examine what they do, how they do it, the effects and outcomes, and the resources they use. This might be carried out when identifying and assessing existing provision.

Points to consider

71   Items from Annex C could be used here. The following questions might also be helpful.

- Is the provider working in an area where e-learning is already used by others?

- Would remote access to learning, or ability to access learning at any time of day, be of benefit?

- Does the provider have appropriate connectivity and equipment? If not, what are the barriers to getting them?

- Are there sources of information and advice that the provider could use to help evaluate the potential benefits and the implications of using e-learning?

- Would the use of complementary technologies (for example, digital cameras) enhance the learning experience in any way?

- If portfolios of evidence are compiled, could this be done electronically using a commercial application?

- Are there packages available to help with initial assessment, appraisal or diagnosis of learning needs?

72   Lastly, there are many other ways in which technology can be used. It does not have to be a PC linked to the Internet. It can be a stand-alone PC or some other device such as a digital camera.

Checklist 5: Physical Locations where Learning and Training are Being Delivered

Discussion

73   This section looks at identifying other physical locations where learning and training are being delivered, and to what extent these outlets can provide or support e-learning. There are usually many and diverse locations for the delivery of learning in any given area.

74   The obvious places are FE and sixth form colleges, school sixth forms, **learndirect** and UK Online centres and libraries.

75 Less well documented might be the centres, access points and other places serving voluntary and community organisations, together with college outreach centres and any mobile provision. Knowledge of the location and capability of these places might be of value when deciding how identified needs could be met.

76 Information that might usefully be gathered includes:

- the parent organisation;
- the name of the centre;
- the type of centre (for example, youth centre, community hall, school or **learndirect**);
- location and contact details;
- opening hours;
- the type of provision (for example, **learndirect**, ACL centre, IT centre or FE outreach centre);
- whether it is open to the public;
- the number of learners it can handle;
- car parking and other transport links;
- disabled access;
- Skills and Education Network (SENET) facilities;
- crèche facilities;
- whether refreshments are available;
- whether the centre has IT equipment;
- the number and type of PCs (such as laptop or desktop);
- whether one or more PCs are connected to the Internet, and if so the type of connection (such as dial-up, ISDN, ADSL or broadband); and
- whether any such PCs are connected to another network (such as a college network or an LA network).

77 This might be extended to non-funded providers to ascertain the full extent of delivery outlets. Again, this can usually be achieved quite quickly by email, postal or telephone surveys, particularly of FE colleges and LAs. Annex B highlights some findings from previous e-learning reviews.

Checklist 6: Planning and Working with other Organisations

Discussion

78 This checklist describes a range of other organisations whose work in the field of e-learning will have an impact on that of local Learning and Skills Councils (local LSCs).

79 It also contains an extensive list of potential actions, not all of which will be an immediate priority. Some may not be relevant to all local LSCs, some will require longer-term planning, and some will require additional information and support from other agencies.

80 There are a variety of autonomous and semi-autonomous organisations involved in e-learning, either through funding, in providing resources, in fulfilling statutory obligations or in providing support. The actions and programmes of all of these will impinge on LSC responsibilities and influence ways in which actions might be undertaken. The organisations include the LEAs, LAs, FE colleges, voluntary and community organisations, Ufi, RDAs, local sub-regional strategic partnerships, neighbouring LSCs, the RBCs, the JISC RSCs, NILTA and BECTa (particularly through its subject mentor, ILT champion and FERL practitioner programmes). It will be important for the efficient operation of any e-learning plan that the LSC is aware of the activities and plans of these organisations. It will be equally important that these organisations communicate and collaborate with one another.

Points to consider, and information sources

81 Identify who within the above organisations has primary responsibility for e-learning. Although often this is known, in other cases it may be unclear.

82 It is important to establish a mechanism for ensuring an efficient and timely flow of information between the LSC and other organisations involved in e-learning provision.

83   Make sure that the e-learning policies, activities, connectivity and infrastructure plans of these agents and any other relevant organisations are known and their implications understood, particularly in terms of potential impact and risk.

84   For example: the Ufi will shortly be mapping post-16 e-learning provision by local LSC area, information that will be useful to local LSCs in establishing baseline information. This work is being conducted from the Ufi's regional offices at the request of the Department for Education and Skills (DfES). Two co-ordinators in each Ufi regional office will help to manage and support UK Online centres. Mapping post-16 e-learning provision is part of this. Contact the Ufi regional directors for further information.

85   In particular, identify what the JISC RSCs are currently doing to support e-learning, and what their plans are.

www.jisc.ac.uk/rsc

86   Identify roles that other support agencies such as BECTa, the RBCs, the local metropolitan area network and NILTA can play.

www.becta.org.uk
http://ferl.becta.org.uk
http://broadband.ngfl.gov.uk
www.ja.net/janet-sites/MANs
www.nilta.org.uk
www.nln.ac.uk/materials

87   The e-learning materials produced by BECTa on behalf of the NLN are coming on-stream progressively over the next few years, and will include an ACL focus. Although produced originally for use in FE colleges, the NLN materials may be released for use in other LSC-funded provision in the future. All NLN partners promote their activities through the NLN website and a database of staff development events.

www.nln.ac.uk/events

88   Review with neighbouring local LSCs the regional travel-to-study zones and the implications of e-learning for affecting or influencing these. It is

also worth promoting effective liaison between all providers, and looking for ways to collaborate in providing training through e-learning methods.

89   The identification of opportunities for collaborative provision is the first step. Providers can then assess their capability to offer e-learning elements, perhaps using ideas from current examples of collaborative provision through e-learning.

http://ferl.becta.org.uk/display.cfm?resID=4988
http://ferl.becta.org.uk/display.cfm?resID=4606

90   So that they can provide appropriate IAG, ensure that IAG providers, those delivering the Connexions service, and all others offering information about careers, education and training understand:

•   the potential of e-learning;
•   how e-learning can contribute to the development of the skills needs of local industries; and
•   where e-learning is being used, who by and what for.

91   Some 14–19 Pathfinders are exploring those opportunities.

www.dfes.gov.uk/14-19pathfinders

92   Encourage all those engaged in careers, education and training advice to use software tools to support and enhance the IAG processes.

93   Require all providers of post-16 learning and training to assess the roles that e-earning can play in the delivery of their targets or the fulfilment of their objectives, and to evaluate the benefits and risks of using e-earning. Such providers include:

•   FE institutions, who may already have done this in their ILT strategies;

http://ferl.becta.org.uk/content_files/resources/keydocs/producing_a_college_ilt_strat/prod_college_ilt_strategy.pdf (November 2001)

•   WBL providers;
•   UK Online centres;
•   **learndirect** centres;
•   voluntary and community learning organisations;
•   libraries; and
•   private training providers.

94 All providers should assess the connectivity, infrastructure, learning resources, learner support and staff development requirements for the achievement of the identified roles and describe how these requirements will be met.

95 Annex C might be helpful in this assessment, as may online resources such as the NLN toolkit or the JISC's Embedding Learning Technologies Institutionally toolkit.

www.nln.ac.uk

www.jisc.ac.uk/index.cfm?name=project_elti

96 Each provider will organise resources differently. There may be no easy solution, but providers should be willing to assess their current position. They should incorporate the results of their assessments in their business (or organisational) plans and describe how e-learning is to be used in the implementation of such plans. For FE institutions, these may be their ILT plans.

97 Identify contributions that learning partnerships can make to these processes. A Learning Partnership Toolkit is available, and there is at least one example of such a partnership supporting the 14–19 agenda using e-learning.

www.dfes.gov.uk/learningparttoolkit

www.kingswoodpartnership.org.uk

98 Address the transitions from school to FE and to WBL, in order to avoid or minimise the potential discontinuity of learner experience arising from disparities in e-learning provision.

99 Determine which providers should be collaborating with one another on the provision of post-16 learning, and how e-learning can facilitate such collaboration. It may be useful to look at some existing examples of collaboration using e-learning.

http://ferl.becta.org.uk/collaboration

100 Establish how providers can collaborate to ensure coherence of provision and provide routes to progression for learners, particularly in

the 14–19 age range. It may help to look at some current or planned 14–19 Pathfinder projects. For example:

- the Newham Pathfinder intends to create a clear shared map of vocational and work-related Key Stage 4 provision;
- the Shropshire Pathfinder is creating a virtual community for Shropshire students, teachers and trainers through a common managed learning environment (MLE); and
- the Southwark Pathfinder will audit and map existing pathways into local employment routes for students aged 14–19, especially those studying qualifications at Level 1 and Level 2.

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www.dfes.gov.uk/14-19pathfinders
</div>

101 The 14–19 team at BECTa has produced a document highlighting the key areas in which ICT can support the implementation of cross-sector 14–19 education, concentrating on the systems and structures underpinning the management of learning.

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http://ferl.becta.org.uk/display.cfm?resID=5423
</div>

102 The use of ICT-based approaches to workplace assessment and the construction of e-portfolios is growing, and will become intrinsically linked to the e-learning arena. Ensure that the implications of these developments are known and appreciated by all post-16 providers (especially among WBL providers and in workforce development programmes) and are incorporated in providers' e-learning strategies. The potential of these technologies is examined in a resource called *Where Next for E-portfolios?*

<div align="right">

www.ferl.org.uk/display.cfm?resID=4956
</div>

103 Define the roles of UK Online centres and IAG providers in promoting, supporting and delivering e-learning, especially to communities that are otherwise hard to reach, and develop plans to achieve this. UK Online provides a guide to *Good Practice Guide* for FE in the community*.*

<div align="right">

www.helpisathand.gov.uk/publications/good-practice/fe
</div>

104 Identify opportunities for the wider exploitation of **learndirect** and NLN materials, particularly for workforce development and among WBL providers.

105 Identify how coherence between UK Online centres and **learndirect** can be achieved.

106 Identify how UK Online centres, **learndirect**, other training providers and IAG practitioners can collaborate to ensure that e-learning is given proper consideration when selecting training and progression routes.

107 Review the potential use of software tools to support and enhance the IAG processes, and assess those currently available. In particular, ensure that Connexions' new central Internet services are supported and used. It may be useful to map Internet-based support for learner choice and learner support in the region.

Annex B: Results of other Reviews

1 This annex describes findings from previous investigations and indicates what might be expected in an assessment of existing provision.

Connectivity

2 Mapping connectivity (meaning what connectivity exists in which areas) is often problematic and impractical. A viable, easy to undertake and satisfactory alternative is to ask providers what they have available. Typical findings might be as follows.

- FE institutions are usually well connected, as are most secondary schools.

- Most libraries have broadband connections as part of the People's Network.

- It is reasonable to assume that all **learndirect** and most UK Online centres have adequate connectivity.

- The position of WBL providers shows the most variability. In some areas 60% of them report adequate connectivity for e-learning purposes, but it can be much lower than this.

- Many LAs have established broadband connections to provide communications between their various functional elements. Where this is the case, schools and libraries are usually given access to these networks. In some cases, access is extended to FE institutions, ACL facilities, IAG providers and WBL providers.

3   Consequently, it may be that post-16 education and training provision is reasonably well served for connectivity, which therefore should not be a barrier to the uptake of e-learning.

Infrastructure

4   FE colleges show considerable diversity of provision. While some institutions are equipped for e-learning in most teaching rooms and study areas, sometimes using wireless area networks, there are still plenty of colleges without sufficient resources to make flexible and widespread use of e-learning. Common difficulties include the lack of networked or Internet-ready classrooms, and inflexible access owing to the concentration of PCs in learning centres.

5   About half the colleges have installed VLEs, although the extent to which these are used effectively is questionable. Many of the remaining colleges are using their intranets to store, access and deliver e-learning materials satisfactorily. There are continuing debates about the desirability of installing the current generation of VLEs and about their relative merits. Seek specialist advice if these questions arise. The RSCs are an obvious source of expertise here.

6   Some of the most significant infrastructure programmes are the development and implementation of LEA-wide VLEs. Sometimes there are also sub-regional resources shared by a number of LEAs. Potentially such VLEs allow all education and training providers within the LEA boundary to access repositories of learning materials, to share resources, to be able to exchange resources and to be able to manage learning and track the progress of learners. They can provide continuous access, allowing learning anywhere at any time, and could make fundamental contributions to achieving the 14–19 Green Paper objectives of creating flexibility of learning, flexibility of delivery and collaboration between providers.

7   There are several examples where VLEs are beginning to be used in this manner. Such use is typically associated with political and senior management commitment from the LAs and LEAs concerned, and the

formulation of LA and LEA strategies to implement and support the use of this technology.

8   City Learning Centres are having significant positive effects on surrounding schools as well as on the development of community access.

9   The impact in schools of associated delivery technologies such as interactive whiteboards is also becoming noticeable.

10   Many FE colleges appear to be less well advanced in their integration of these technologies, and WBL providers are even further behind. This is likely to create discontinuities in the experiences of learners who move from school to FE or WBL, potentially leading to unsatisfactory learning experiences, with consequent implications for retention and achievement. This could be lead to some of the objectives of Success for All and the 14–19 Green Paper being missed, and inhibit progress towards more integrated provision at 16–19.

11   Libraries have their own, quite substantial, infrastructure, thanks to the People's Network programme. The People's Network has connected all public libraries to the Internet as part of the Government's commitment to give everyone in the UK the opportunity to get online. Lottery-funded by the New Opportunities Fund and managed by Resource, more than 4,000 library centres have been created through this initiative. All libraries are now UK Online centres, and many may become **learndirect** centres, with consequent opportunities for the provision of e-learning.

12   By contrast, Infrastructure provision by WBL providers is variable.

Learning Materials

13   FE colleges and schools obtain their materials from a variety of sources, and also develop a lot of their own.

14   Curriculum Online and, once established, College Online will be significant sources of learning and training material. College Online may be made available to all post-16 providers, including WBL providers.

15   Among WBL providers there tends to be a general and widespread lack
        of knowledge about sources of learning material. This is particularly so
        for material produced for vocational courses and qualifications by
        industry sector bodies (NTOs and sector skills councils), **learndirect** and
        BECTa through the NLN materials development programme.

16   Consequently it is probable that a relatively high proportion of WBL
        providers do not use e-learning, and a significant number of these may
        not intend to do so in the foreseeable future. This problem may be
        compounded by these providers having little awareness of the potential
        benefits of e-learning.

17   A programme of information, encouragement and training is required if
        WBL providers are to make any significant use of e-learning.

Learner Support

18   Naturally, FE colleges and schools use teachers to provide learner
        support.

19   All library staff are being trained in ICT skills to European Computer
        Driving Licence (ECDL) level. However, it should not be assumed that
        library staff are in a position to provide support to e-learners. There may
        be insufficient staff to do this, or it may be a new task for which they
        have not yet been trained.

20   WBL providers usually source their learner support from their full-time
        staff. It is rare for staff to have undertaken any formal training in how to
        support e-learners; they have often evolved into this role while seeking
        ways of using the technology.

21   Learner support should include IAG about career and training
        opportunities. E-resources are being deployed increasingly in IAG
        provision, and should be seen as an integral part of learner support.

Skills of Teachers, Learners and Others

22   City Learning Centres have usually created staff development
        programmes, and contain experienced staff who can lead them.

23   In the context of e-learning, it is rare to find examples of WBL providers that plan for any development needs of their staff. This may need to be addressed as the use of e-learning becomes more widespread.

24   Learners usually pick up their skills as part of the e-learning experiences offered.

25   Among all providers, the shortage of qualified technical staff is seen as a critical factor that could pose a threat to the success of e-learning.

26   For a review of the literature on e-learning, see *Distributed and Electronic Learning: A review of the literature*, Learning and Skills Development Agency (LSDA), October 2002.

www.lsda.org.uk/files/pdf/RPM449RF1.pdf

Annex C: Guidance for the Implementation of E-learning

1   The topics here may need to be addressed when considering the use of e-learning. Some providers, such as FE colleges, will probably have already addressed them, so this annex is likely to be of most use to those about to engage in the use of e-learning, those who wish to improve their provision, and those advising on provision or assessing the adequacy of provision.

Points to consider

2   What strategic goals is the organisation trying to achieve using e-learning?

3   Take account of other local and regional policies or activities.

4   Consider the impact of those organisations or programmes that may influence the development or delivery of the strategy, and their relationship to it. For example, take into account the requirements of the local LSC.

5   Who are the intended learners? What are their characteristics, and why would they want to engage with or use e-learning facilities?

- Where are they located?

- How will they be made aware of the opportunities?

- What will their entitlements be?

- How will their access be facilitated, managed and controlled?

- How will they be supported?

6   Consider the present or intended characteristics of the points of access:

- location and features;

- accessibility to the public, car parking, disabled access, facilities for the visually and hearing impaired, and other inclusivity aspects;

- opening hours;

- capacity;

- number of PCs or other devices;

- connectivity: service provider, method of connection and capacity; and

- other facilities such as refreshments and proximity of childcare.

7   Delivering experiences and opportunities obviously depends on the materials and other learning resources and the processes by which they are delivered. Any strategy should describe how these resources would be obtained and deployed to achieve the desired goals.

- What is the nature and source of the anticipated materials and resources? This might include Government-initiated programmes such as UK Online, **learndirect**, NLN, Connexions and Worktrain.

- How would these be acquired? Are there licensing implications?

- Where would they be stored and how would they be accessed?

- How would they be managed, delivered and supported?

Technical Requirements

8   The technical issues of delivery are fundamental to the success of any initiative, and consequently occupy a significant part of any strategy. However, it is the nature of the users and their desired activities that determine the technology to be used and how it is deployed. The purpose of this part of the document is to ensure that an appropriate and adequate technical infrastructure is available to deliver the experiences and opportunities. This includes:

a   specifying the type of traffic that will flow, the desired responsiveness, and the consequent bandwidth capacity and communications infrastructure;

b   specifying the origins and destinations of the traffic – for instance, from:

- an educational institution to an educational material supplier;

- a small- and medium-sized enterprise to a commercial training supplier;

- a UK Online centre to **learndirect** Futures; and

- a **learndirect** centre to the Ufi;

c   specifying the route(s) to be taken to ensure legitimate access;

d   deciding where and how connectivity will be sourced, by considering:

- what it is to which the user will be connected;

- how the connection will be made (such as through BT landline, cable, wireless transmission or satellite);

- how it will be contracted (for instance, as a fully managed service); and

- how it will be funded;

e   determining how many end-user systems (such as PCs or Apple Macs) will be required, what their specifications will be, how they will be configured, where they will be located, and so on;

f   deciding on the type of network required, and how the IT hardware resources will be managed, monitored and supported;

g   deciding how Internet access and email will be provided and monitored, if these facilities are required;

h   determining what will be needed to store, search, access, retrieve and deliver the materials, and to monitor usage (particularly bandwidth);

i   deciding whether a VLE or an MLE may be needed;

www.jisc.ac.uk/index.cfm?name=mle_home

j   identifying any issues of standards and interoperability that may need to be addressed;

k   defining service levels – for example, specifying the availability of access to the Internet and the capacity of the network or communications infrastructure;

l   monitoring network traffic to ensure that quality of service is maintained and to identify when increased capacity may be required or other communications aspects may need to be addressed; and

m   periodic reviewing of requirements.

Support

9   Supporting users is recognised as fundamental to the success of e-learning, and so a plan for supporting learners should be an integral part of any strategy. Support often begins with greeting users, providing information about the opportunities being offered, and establishing users' desires and needs before identifying appropriate activities. It can require specialist knowledge and expertise, the use of IAG providers, or services such as those of UK Online, Connexions, **learndirect** Futures or Worktrain.

10   Decisions need to be made about the nature of the support required, and the standards to which it will be provided. Such support may include:

- accessing services over the Internet;
- facilitating access to resources and ensuring inclusion – for example, catering for impairment (perhaps physical, hearing or visual) or providing childcare facilities;
- general reassurance;
- help with the use of equipment;
- developing user skills (for example, basic IT competence) to enable learners to participate;
- specialist advice about the use of applications such as the Internet and email; and
- consulting after the event to learn how the user might wish to consolidate, further develop, or otherwise benefit from the recently concluded activity.

11   A process for identifying, recruiting, training and supporting personnel who are providing support needs to be established.

Technical support

12   Ensure that technically proficient staff are available, who can plan, implement, maintain, support and monitor the technical infrastructure. Issues here include:

- the number and competence of technical support staff;
- continued professional development of technical staff;
- the roles and availability of staff; and

- contingency plans for cover staff absence.

13 A procedure should be put in place to identify, recruit and train technical support personnel.

14 Technical staff need to supply support for:

- the communications infrastructure;
- end-user platforms;
- connectivity;
- hosting of materials;
- use of applications software;
- virus protection and cleansing; and
- firewalls and their configuration.

15 A disaster recovery plan should be drawn up.

Legal Aspects

16 Ensure compliance with legal requirements such as those of the Disability Discrimination Act and the Data Protection Act.

Annex D: Further Reading

14–19: Opportunity and Excellence, DfES, Sheffield, 2002.

www.dfes.gov.uk/14-19/main.shtml

Success for All: Reforming Further Education and Training, DfES, Sheffield, 2002.

www.successforall.gov.uk/linkAttachments/01.pdf

Towards a Unified E-learning Strategy: Consultation Document, DfES, Sheffield, 2003.

www.dfes.gov.uk/consultations2/16

Distributed and Electronic Learning Group Report, LSC, Coventry, 2002.

http://intranet/Portal/Portal%20Content/Resources/Functional%20Groups/Success%20for%20all/DELG_REP0627.doc

Circular 03/06 *Strategic Area Reviews*, LSC, Coventry, March 2003.

www.successforall.gov.uk/linkAttachments/Circular_0306-v2.pdf

Distributed and Electronic Learning: A review of the literature, LSDA, London, October 2002.

www.lsda.org.uk/files/pdf/RPM449RF1.pdf