LSDA responds

Curriculum online

A consultation paper

Note
The Learning and Skills Development Agency
was formerly known as FEDA.

Further information
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Introduction

1. The Learning and Skills Development Agency (LSDA) is a strategic national resource for the development of policy and practice in post-16 education and training. This includes addressing the agenda for 14–19 education and work with disaffected young people. Our activities include research to inform the development of policy and practice in this area. We have a clear brief to work across the learning and skills sector, providing support for colleges, work-based training, adult and community learning, and schools post-16, with a particular focus on quality improvement and support for the implementation of policy. The LSDA has developed strong working partnerships with relevant organisations to ensure added value and the ability to work most effectively across a wide spectrum.

2. A major strand of the LSDA's work is in e-learning and Information and Communication Technology (ICT). This includes:

   - Research and development projects funded by core grant from the Learning and Skills Council (LSC) or commissioned by such bodies as the Department for Education and Skills (DfES), the Higher Education Funding Council for England (HEFCE), Education and Learning Wales (ELWA) and the Joint Information Systems Committee (JISC). (In future, strategic research including longitudinal studies will also be commissioned under the banner of the new national Learning and Skills Research Centre.)

   - Pan-European collaborative research and development projects supported by the European Commission

   - Evaluations of national e-learning initiatives including the National Learning Network (NLN) programme and the Further Education Computers for Teachers scheme

   - E-learning development work through the Quality in Information and Learning Technology (QUILT) staff development programme and the NLN Information and Learning Technology (ILT) champions programme

   - Commissioning and overseeing innovative ICT Projects and carrying out audits of ICT materials within the NLN programme

   - The development of ILT standards for teaching and learning and management in partnership with the Further Education National Training Organisation (FENTO) and the National Information and Learning Technologies Association (NILTA).

3. The *Curriculum online* consultation paper is directed primarily at schools, and therefore we have chosen not to complete the questionnaire. We comment below on specific issues of particular relevance to our remit.

Support and training

4. The consultation paper refers to two key components which need to be addressed in order to achieve the ambitious vision of *Curriculum online*; these are:

   - development of high quality content covering the whole national curriculum

   - a distribution system including a national broadband portal to deliver content to schools and homes via various channels including digital TV.

5. There is a third essential component which needs to be included in order to ensure that the vision becomes a reality, namely support and training. Sections 2.6 and 3.8–3.10 of the consultation paper discuss the importance of adequate training for teachers. Detailed plans need to be developed for establishing approaches to support and training which mirror the level of detailed consideration afforded to procurement and distribution of materials.

6. The consultation paper discusses in detail how materials might be procured and how these might then be distributed to both schools and homes. The interesting proposal to develop a 'cybrarian' to help learners, particularly those with special needs or without advanced information handling skills, to find materials is also discussed. It is worth noting that the emerging FENTO ILT standards have been developed incorporating the needs of librarians.

7. Consideration needs to be given to establishing appropriate support arrangements for learners, especially for pupils and their parents using learning materials at home. Help, advice and encouragement will be needed to maximise the benefits of learning online. Much of the learner support is most appropriately provided by teachers, however, in order to enable teachers to do this effectively there is an urgent for additional training.

8. Training, building on the ICT skills training provided under the New Opportunities Fund (NOF) scheme, is needed to help develop teachers' skills in applying ICT to teaching and learning both in classroom situations and remotely. Responding to a recent British Educational Communications and Technology Agency (BECTA) survey, many teachers reported that they have ICT skills but do not use, or feel confident in using, ICT in their teaching. Again, the FENTO ILT standards, developed by LSDA, are relevant and could easily be customised for use in the schools sector.

9. Technical support arrangements within schools, for the proposed national portal and for pupils using materials at home need to be clarified. A model for technical support exists in the Further Education sector whereby the JISC provides technical support for the network connection through United Kingdom Educational and Research Network Association (UKERNA), but support in the home requires further consideration.

Small units of e-learning and e-learning materials

10. Before considering the commissioning of e-materials more work needs to be done to investigate the pedagogy of e-learning and methods of student/pupil interaction with materials. The commercial sector has had only limited success with this – exemplified by the fact that although technology already has the capacity to deliver, through the internet and CD-ROMs, for example, the use of such materials is not widespread. Such research would investigate the pedagogy of e-learning, mapping learning styles to e-materials, institutional deployment methodologies, age appropriateness and factors to be considered for different modes of delivery (classroom, remotely, etc) to ensure that a holistic approach is taken.

11. The consultation paper does not indicate clearly the level of modularity or 'granularity' of materials planned, however the implication seems to be that whole courses are required. If this is the case, the schools approach contrasts with that being taken in the lifelong learning context where many providers, including some colleges and, especially, Ufi, are championing very small modules or units and 'bite-sized learning'.

12. For classroom delivery, experience with practitioners suggests that teachers prefer to create or collect together their own materials rather than, for example, simply use a whole book without any further materials of their own. The practice of combining elements of ICT learning materials to create personalised materials encourages ownership (of both the materials and the use of ICT in general), nurtures teachers' creativity and makes their role more interesting. Benefits accrue to both pupils and schools where teachers are motivated and enthusiastic and feel fully involved in learning systems.

13. A national portal could facilitate the distribution and sharing of many 'modules' or 'chunks' of material which teachers could combine to create courses. This approach would allow teachers to develop courses tailored to their pupils' preferred learning styles and strategies, as well as to the environment and culture of their school, while meeting the demands of qualifications. If the customisation route is followed, as we are recommending, there are significant training issues for teaching, librarian and support staff in the use of suitable software tools. Again, the FENTO ILT standards have taken this into account. A modular curriculum would greatly support this approach and teachers could assemble whole courses in different ways to suit their particular client needs.

Distribution

14. The discussion paper sets out two broad approaches to distribution:
    - distribution without Government involvement (market-led)
    - Government involvement in distribution.

15. Section 5.8 states that benefits of the first approach are that it would ensure competition and create a diverse range of suppliers thereby providing incentives to continue to innovate and focus on the needs of customers. However, some Government involvement need not lead to reduced competition and innovation. This is particularly true if:
    - the concept of different levels of granularity of materials is applied, allowing many small providers to join the market as well as the few large content developers
    - the Government takes the lead in defining standards for the materials (content and technical standards) and standards for the different methods of transmission.

16. This leads to the concept of endorsement of vendors' products and services which is not explicitly addressed in the paper, although the method of private public partnership is examined in section 5.14.

17. Section 5.10 focuses on the quality of the materials. It should be noted here that the concept of 'quality' is open to interpretation, and quality of e-learning materials should be defined in terms of 'fitness for purpose'. Although production standards will be important, the primary consideration is that the learner engages with the materials and learning takes place effectively. Our experience in this area suggests that it is all too easy to put the emphasis on the standard of production and not the pedagogy behind the material.

18. Section 5.12 details how schools might receive standards fund money in the form of credits which would be used to purchase materials through the national portal. This idea could be further developed to recognise that schools might be both purchasers and suppliers of materials. This would particularly apply if materials were traded at a variety of levels of granularity. Individual teachers could be encouraged to develop materials to be traded. This would have the advantages of contributing to staff development and encouraging ownership of the distribution system. The evaluation of the Further Education staff development initiative QUILT found evidence that participation in development projects is a very effective form of staff development activity.

19. Consideration might also be given to providing some form of reward to teachers as well as 'paying' their school in standards fund credits. Rewards might consist of, for example, free places on training courses, discounts on equipment, software, books, prizes for best materials.

Content

20. The consultation paper sets out the vision for content as a set of resources that are comprehensive, coherent and individualised. A number of possible approaches are suggested to achieve the vision such as 'stimulating the market', 'procuring content' and 'a lead content commissioner'.

21. Section 5.24 suggests that a disadvantage of the free market approach might be that it could prove more difficult to achieve 'coherence' – the term coherence having been defined as all materials being able to work together effectively. The real issue here is the need for standards to be established and for content providers to 'buy into' these standards. Work is currently in progress to establish standards which will ensure interoperability between learning materials and compatibility with delivery systems. Ufi and the Learning and Skills sector, in the context of the National Learning Network, have both taken the decision to base their materials standards on the IMS standards plus local sector specific variations.

22. A serious objection to a fully free market approach is set out in section 5.25. This states that this is unlikely to guarantee an adequate supply of materials in minority subjects. For this reason a mixed approach would be better, combining the Rothschild proposals plus procurement to top-up under-addressed subjects. A remaining issue to address in this case is who should be responsible for procurement. The consultation paper suggests either the DfES or a 'lead provider and commissioner'. The difficulty with the lead provider and commissioner is the likely concerns of other providers as described in section 5.31.

23. A possible solution to this problem would be for commissioning to be carried out by an independent organisation, not part of the DfES, and with no commercial involvement in materials production. A number of organisations currently exist who could be considered for this role including LSDA, BECTA and JISC.

24. Another approach would be for the Government to act as a commissioner and endorser of materials. Once standards have been set for materials (both pedagogical and technical), the Government's role would be to invite suppliers to produce materials and then submit them to be endorsed as meeting those standards. Schools would only be able to use their e-learning credits to purchase materials that meet the approved standards. In specialist areas or areas of demand materials could be commissioned, but of course this would not preclude vendors independently producing their own materials in any area. This has the advantage of keeping the market free, encouraging diversity and freedom of choice while stimulating the market.

Choice, shareware and freeware

25. A framework for endorsement of granular materials would need to be developed which encourages diversity of choice – it would be restrictive if there were only one set of materials on a given subject. In addition, a 'shareware' culture could be developed whereby suppliers are encouraged to let schools trial materials before purchase, a concept that has been proven to work for the software industry. The free sharing of materials produced by teachers themselves should also be encouraged.

26. The vision of *Curriculum online* includes delivery of materials over a multiplicity of channels including digital TV. A major issue for content procurement will be that material written for internet and intranet delivery, for example using HTML, cannot easily be translated into the format required for digital broadcasting. Consideration needs to be given to how this issue could be addressed and what role the BBC might play. The endorsement framework should also apply to broadcasters such as the BBC and Granada Media to ensure that the standards are being met.

Delivery infrastructure

27. As section 5.39 suggests, attempting to procure all the content plus the delivery system from a single consortium would be a very complex undertaking.

28. A speaker at a recent European Community conference on e-learning and the mobile citizen stated, 'if content is king, infrastructure is God'. Content and infrastructure are extremely important and complex areas which are best addressed separately. The Government should continue to take a lead role on broadband infrastructure – for example, the formation of the UK Online Broadband Stakeholder Task Group and the Cabinet Office project on roll-out of broadband to individuals and businesses in rural areas. Joined-up thinking on broadband in all geographical areas has the potential to deliver benefits in terms of creating economies of scale. Particularly in view of current debate and developments concerning vocational education, other possible benefits of *Curriculum online* include:

    ● providing access to schools materials for SMEs and individuals

    ● sharing of materials between schools and colleges, including enabling schools to take advantage of the materials repository being set up within the Learning and Skills sector

    ● facilitating closer, mutually beneficial, links between schools and local businesses.

29. In the short term, content procured should include both the multimedia-rich variety and less complex materials that can be efficiently accessed via the interim infrastructure. The endorsement framework could be developed to ensure that vendors and internet service providers meet agreed technical and quality standards.

This publication sets out the Learning and Skills
Development Agency's response to the
Curriculum online consultation published by
the DfEE in April 2001. The original consultation
document can be found at www.dfes.gov.uk/
consultations/archive/archive1.cfm?CONID=68