

# Becta's view

## Personalising learning with ICT

January 2005



the  
learner

the educational  
workforce

the educational  
institution

the national  
system

### Why personalise learning?

Personalised learning recognises that, while significant improvements have been made by practitioners focusing their attention on the progress made by the whole class, further progress requires a focus on the individual learner.

Becta believes that personalising learning is a positive direction for education reform. It has the potential to acknowledge the best of existing practice and make it available for all learners. Its explicit reference to flexibility in the times, places and ways of learning reinforces Becta's belief in developing systems which truly support lifelong learning.

### The personalisation of public services

The discussion on personalising learning forms part of a wide, lively debate on the reform of all public services. This centres on how best to move from a culture of public service where the individual has to respond to the system and its structures to a culture where the systems and structures themselves are designed to respond to individual need.

Three approaches to the issue have emerged:

- Increasing flexibility and responsiveness on the provider side. In education this is typified by the approaches to qualification routes recommended in the Tomlinson report on the 14–19 curriculum, increased local autonomy and a general move away from centrally determined approaches to learning and teaching.
- Increasing the influence of market forces by increasing consumer choice and moving power and influence towards the demand side.
- Increasing participation at all levels in the design and delivery of services by engaging learners, professionals and stakeholders.



**Becta**

British Educational Communications  
and Technology Agency

Becta is the Government's key partner in the strategic development and delivery of its information and communications technology (ICT) and e-learning strategy for the schools and the learning and skills sectors.

# Becta's view

The rationale for implementing a personalised learning culture mirrors the challenges posed by a new policy approach aligned to personalisation and signalled by *Every Child Matters*, the 14–19 reform agenda and *Success for All*. These challenges include:

- shifting attention onto the individual learner, without losing the focus on attainment
- ensuring that individual expectations are sufficiently challenging
- monitoring individual progress without increasing the bureaucratic burden on teachers
- ensuring that practitioners' feedback to learners is evidence-based, timely and aimed at increasing performance
- ensuring that the practitioner's view of the learner is informed by a whole-institution perspective
- maximising the spread in effective practice without undue prescription
- maximising opportunity and flexibility while ensuring affordability (a personalised learning model of flexible specialisation should be flexible enough to allow learners to identify others who want the same types of flexibility – their natural communities of interest)
- capitalising on learners' increasing personal access to alternative sources of learning support and information
- changing current learning and teaching support systems (including e-learning systems) which are based on a model of prescriptive education, to systems that can effectively support the culture change and flexibilities envisaged by the adoption of personalised learning.

The Standards Unit within the DfES has identified five elements of a personalised learning system, which Becta has taken as a basis for discussion:

- Enabling curriculum choice
- The use of learning and teaching strategies
- The use of assessment for learning
- Organising the institution for personalised learning
- Engaging with the community and beyond.

ICT makes the personalised learning agenda achievable, manageable, sustainable – in short, deliverable. But Becta recognises that, while ICT can currently bring much to the personalised learning agenda, it has a considerable distance to travel before its potential to do so can be fully realised.

## Personalising learning with ICT

Becta supports the ethos and the application of personalised learning, and values the quality of debate within practitioner, manager and policy-making communities. Becta believes that ICT will be a vital support for the widespread adoption of personalised learning.

Personalised learning will encompass administrative, data management and organisational requirements, but more importantly, it will enable learning and teaching to be truly responsive to individual needs – by matching learning approach and content to learning styles, providing ongoing feedback to the learner, broadening course choice, enabling remote access and including isolated or previously excluded learners.

## ICT and personalised learning

The debate over how ICT supports personalised learning is timely. Becta believes that an agenda aimed at achieving individual excellence, while providing equity for all with ICT's ability to offer what the business sector calls 'mass customisation', offers a significant opportunity.

So what can ICT do to help to make learning 'personalised'? It can be used to personalise content sources and resources, allowing those appropriate to each learner's individual needs to be effectively identified, modified, used and reused. It can provide pathways through that content, which can be personalised to the needs of each learner and easily or automatically modified to take account of progress.

ICT can also present a range of interfaces to the content that are appropriate to the level and ability of the individual learner and can provide collaborative tools that provide new, interesting and powerful mechanisms for communication and collaboration.

In addition it can facilitate effective assessment and reporting tools that are flexible, adaptive, powerful, make minimal bureaucratic demands on teaching and non-teaching staff, and allow for a detailed understanding of the progress being made by individual learners and groups of learners, within and between institutions.

ICT provides flexibility in key areas such as the decision about:

- **when and where to learn** – for example, at school or college, at work or at home, connecting to resources at the institution and beyond, or at the local library using equipment and connectivity that is centrally provided. Work created during any of these interactions can be added to the learner's 'online portfolio', recording progression and cumulative achievements.
- **who to learn with** – creating opportunities to collaborate not just with students in the same 'organisational' group, but to share work with parents, grandparents, learners on the other side of the world. Delivery of individual courses can be shared



between institutions, thus potentially broadening the curriculum and increasing the viability of smaller institutions, or allowing 'classes' from particularly successful institutions to be 'taken' by learners elsewhere.

#### Enabling curriculum choice

Becta believes that ICT can:

- enable the institution to manage its staff and resources more efficiently
- support team teaching and engage non-teaching staff
- provide individual practitioners with access to continuing professional development and external expertise and support, helping them to extend their contributions to the institution's curriculum provision
- provide learners with access to external support and courses, allowing them to study a wider range of options
- help to overcome the limitations to curriculum provision in small or rural institutions, especially if high-quality teaching expertise can be provided at a distance
- give access to a broad range of searchable, globally available resources and expert teaching
- allow minority subjects to be taught across several institutions, a region, nationally and internationally.

Becta believes that the strategic implementation of ICT will be essential if the freedoms and flexibility given to institutions are to be translated into real curriculum choice for the learner.

#### Supporting learning and teaching strategies for personalised learning

Research evidence indicates that ICT can support and enhance a variety of learning and teaching strategies, including:

- making difficult ideas more understandable when multimedia makes them accessible to a range of learning styles
- offering the opportunity for learners to revisit a topic through another medium
- giving learners the power to try out different ideas, and to form and test hypotheses to help them to grasp abstract ideas
- offering the potential for effective group working and peer feedback in class, and for collaboration and support outside the classroom
- increasing learners' motivation through greater engagement and increased control over their own learning processes
- reducing the time learners spend on low-level activity, increasing commitment to tasks and encouraging them to invest more time developing their understanding of the material being produced

- providing reinforcement through reflection and immediate feedback
- providing access to expertise at times when the learner needs it
- giving learners immediate access to richer, engaging primary source materials and the opportunity to take part in authentic, collaborative problem-solving.

#### Supporting assessment for learning

Becta believes that learners' ability to develop their confidence and competence through continuous reinforcement of their learning using appropriate formative assessment tools is key to personalised learning. Well-structured assessment activity, which reinforces success and provides high-quality feedback on performance, can be one of the principal ways in which this can be achieved. However, Ofsted recognises that assessment, particularly to support learning, remains a 'persistent weakness', and that too many institutions lack adequate systems for tracking the progress of individual learners.

ICT can support and improve this process in a variety of ways, by:

- revealing learners' understanding using a variety of media, including online discussion forums
- utilising e-learning resources with integrated assessments
- supporting effective marking strategies using ICT – including commenting on 'work in progress'
- supporting peer-to-peer feedback
- generating diagnostic data, and managing and manipulating data through learner tracking systems.

#### Organising the institution for personalised learning

Becta believes that ICT plays a key role in effective management and administration of a personalised learning environment both within and beyond the classroom setting.

- Management systems bring together the institution's curriculum, custodial, management and administrative responsibilities.
- Automated and systematised learning tools allow learners secure and safe access to their own and shared workspaces.
- Streamlined management information systems allow for effective cross-institution working.
- ICT offers shared access to learning and teaching resources for all teaching and non-teaching staff. For example, lecturers in many colleges are beginning to use a virtual learning environment or intranet to make their resources available to colleagues. This means that in the event of teacher absence, 'cover' work can be more easily set – the lesson plan and resources required for student learning are already available.
- Data can be used to underpin an individual mentoring scheme.

- ICT is a component in architectural design for personalised learning. New building designs are exploring how innovative use of space and technology (such as wireless networks and docking stations) support organisational models aimed at personalised learning. Similarly, all institutions are developing ways of organising learning that exploit the technology now provided as standard.

Essentially the institution will have a greater flexibility and capability to identify, track and fulfil the needs of its students and teachers within a structured educational process.

#### Engaging with the community and beyond

ICT can remove barriers, such as those between formal and non-formal education, the institution and the community and the teacher and the learner. Becta believes that, appropriately applied and supported, ICT has the potential to:

- provide opportunities for young people to work collaboratively, within and beyond their own institutions

- bridge the gap between the formal place of learning and home, offering a seamless continuity of learning
- allow parents, carers and others to actively engage with and support children's learning, becoming in effect 'co-workers' in the child's education
- extend access for young people excluded from, or not attending, school and have a positive impact on their attitudes and engagement.

#### Addressing the infrastructure challenge

The flexibilities inherent in a personalised learning system require a resilient, coherent and sustainable infrastructure, which operates across institutional and sectoral boundaries. Becta is working on the development of a conceptual architecture which will enable any time, anywhere learning, and take note of the growth in personal access through increasingly mobile technologies.

*Becta's view: authentication*, and *Becta's view: the National Education Network* provide further detail on Becta's work in this area.

## Next steps

Over the next year, Becta will continue to work to support the widespread implementation of personalised learning in each of the five areas identified.

We will engage with government and partners to determine the potential of ICT to support the personalised learning agenda and to extend use of ICT into all relevant sectors: 14-19, sixth forms, work-based learning, adult and community learning, as well as schools and colleges.

We will also be running a series of seminars to explain what we see as the critical characteristics of personalised learning, and considering how we can help organisations and practitioners adopt personalised methods and technologies.

Not least, we will be exploring with learners themselves what they see as the key aspects to personalising their learning, through, for example, projects such as 'Student Voice', which we will report on in the first half of 2005.

### Further information

Personalised learning on the DfES Standards Site  
<http://www.standards.dfes.gov.uk/personalisedlearning/about>

Demos on personalising learning  
<http://www.demos.co.uk/projects/currentprojects/learn2004/person>

Towards a unified e-learning strategy  
<http://www.dfes.gov.uk/consultations/conResults.cfm?consultationId=774>

Innovation Unit site on personalisation  
<http://www.standards.dfes.gov.uk/innovation-unit/personalisation/?version=1>

Institute of Public Policy Research article: The Emperor's New clothes  
[http://www.ippr.org.uk/research/files/team23/project233/PL\\_paper\\_for\\_publication.PDF](http://www.ippr.org.uk/research/files/team23/project233/PL_paper_for_publication.PDF)

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