

Personalisation

Helena Gillespie (University of East Anglia)

John Woollard (University of Southampton)

Content

The unit aims to look at how ICT can support the drive for a more personalised learning experience for pupils in schools. Four areas are considered:

1. What is personalisation? The nature of educational provision for personalised learning and an introduction to the main issues
2. What is a personalised curriculum? The curriculum as experienced by teachers and learners and some consideration of the content of the curriculum.
- 3 What is personalised learning? When and where personalised learning takes place and how schools can organise for personalisation
4. What is a personalised lesson? Personalised learning in the classroom and the kinds of technologies involve.

The emphasis is on how ICT does and might in the future support a learning experience in schools that is increasingly tailored to individual pupil needs. The unit will look at both ICT as a subject and also how ICT is used across the curriculum to support learning.

In using the resource, tutors should consider two important issues:

- How 'personalisation' can be applied effectively in teaching ICT as a subject
- How ICT can help with the process of personalisation in education generally.

Rationale

This resource is designed to look across a number of topics and educational initiatives at the issue of personalisation. It is designed in such a way as it can be used as a unit of work with trainee teachers. Alternatively aspects of it might be included where the related issues are raised in the Initial Teacher Education (ITE) curriculum. This resource is not intended to help tutors in ITE develop a personalised curriculum for their own trainee teachers. It is rather a teaching resource to for tutors in Primary or Secondary ITE who teach Information Technology or Learning Technology. Although the issues are not in any way exclusive to Information or Learning Technology as a subject, ICT it seems, will play a very significant role in a more personalised learning environment. For this reason the issue is highly pertinent to those training to teach ICT as a subject or to use it in their teaching.

What is personalisation? The nature of educational provision for personalised learning

1.1 The drivers for Personalisation

There are many aspects to the emerging personalisation agenda in schools.

The following represents some of the areas that are most pertinent to initial teacher training.

A definition:

"Personalisation is...about putting citizens at the heart of public services and enabling them to have a say in the design and improvement of the organisations that serve them. In education this can be understood as personalised learning – the drive to tailor education to individual need, interest and aptitude so as to fulfil every young person's potential". DfES (2004)

This is reflected by the then Minister of State for School Standards, David Miliband,

"Decisive progress in educational standards occurs where every child matters; careful attention is paid to their individual learning styles, motivations, and needs; there is rigorous use of student target setting linked to high quality assessment; lessons are well paced and enjoyable; and students are supported by partnership with others well beyond the classroom." (Miliband, 2004)

The personalisation agenda is part of a number of current initiatives and developments. It is not an initiative in itself, but an important driver in many of the current changes taking place in many spheres of education. It is important to begin to consider personalisation by understanding what it could mean, and what it doesn't mean:

Personalisation DOESN'T mean:

Teachers planning separately for each of their learners

Learners being left to their own devices

Everyone must learn in the same place (at school or away from school)

Personalisation does mean:

- new ways of teaching and learning could be used and pedagogies that mix a range of styles and strategies could be employed at the same time;
- an understanding of learner needs is at the heart of the process;
- learning technologies could play a significant part in enabling teachers to achieve a personalised approach;

Every Child Matters is one the most important documents to be published for educators in the last few years. The ECM document and

its subsequent agenda is working towards meeting children's and families' needs in order to help all children achieve their potential as members of society. Education is one part of this, and the aim to help all children achieve successful outcomes in the education. A more personalised approach to their learning should help them do this. For this reason its important students to understand the scope of the document and its influence of current educational thinking.

(Link to TTRB article on ECM

<http://www.ttrb.ac.uk/ViewArticle2.aspx?Keyword=every%20child%20matters&SearchOption=And&SearchType=Keyword&RefineExpand=1&ContentId=10423>)

1.2 Issues for reflection and consideration

Students should consider in what ways they have seen evidence of a personalised approach to learning in their placement schools. It would be useful to look at this in the context of the ECM documents and consider how schools and teachers could make progress in personalising learning.

1.3 Key documents

Every Child Matters (Link to TTRB article on ECM

<http://www.ttrb.ac.uk/ViewArticle2.aspx?Keyword=every%20child%20matters&SearchOption=And&SearchType=Keyword&RefineExpand=1&ContentId=10423>)

2. What is a personalised curriculum? The curriculum as experienced by teachers and learners

This section looks at ways in which the existing curriculum can be related to personalisation (section 2.3). To put this in context students should have an understanding of how personalisation related to learning theories (2.1) and have an overview of the current debates around learner voice (2.2). Allied to all of this are developments in assessment for learning and in e-portfolios (2.4)

2.1 Personalisation and theories of learning

Learner centred modes of education have been the dominant education theories of the past 40 years. The majority of teachers currently working in schools have undergone their training when teacher education was based around constructivist theories. More recently trained teachers might also be aware of the theories of metacognition and of theories of multiple intelligences. A useful and succinct overview of these learning theories in Bartlett and Burton's Introduction to Education Studies is useful in understanding how education theories have developed. The personalisation agenda fits with these theories in a number of ways:

Constructivist theories of education (such as those of Vygotsky and Bruner) emphasise the need to start with what the learner knows and can do and to build upon that. Crucial aspects of this pedagogical approach are that the teacher should understand the learner and be able to help move their learning forward (scaffold) in the right ways. This approach is clearly linked with a personalised approach to learning.

Metacognition is a learning theory that emphasises the need for a learner to understand their own learning process in order to move it forward. As with constructivism, the learner and the teacher need to enter into a dialogue about the learning that is taking place. This dialogue will be personal to each learner as they engage with the teacher.

Theories around different learning styles and different types of 'intelligence' have been developing apace in recent times. One of the most popular is that of Howard Gardner who theorised that there are eight different ways in which a person can be intelligent. This theory, and others, have been distilled into a theory which is commonly held by Primary School teachers, that is that some learners learn best Visually, some learn best in an Auditory way, and others in a physical or Kinaesthetic way (popularly known as the VAK theory). Whether or not learners can fit neatly into such categories, most teachers know

that different approaches to learning with a range of media are needed for each individual learner.

Further discussion about learner styles and approaches to teaching and learning is available in the new tutora section on Teaching and Learning

<http://www.ict-tutors.co.uk/index.php?sec=4&tp=0&layout=1&ts=1&findstring=learning%20styles>

2.2 Listening to Learner's voices

In order to personalise learning effectively, the learners need to be listened to. There have been a number of publications looking into how this might effect education. One is exemplified in the Futurelab Handbook on Learner, which sets out why learner voice is important for the education system. In summary:

- Listening to learners' voices helps develop a clearer identity and ethos in a school
- Listening to learners' voices can and should contribute to school development
- Listening to learners' voices encourages better student engagement with school in general
- Listening to learner's voices improves staff/learner relationships

It seems that listening to learners and including them more thoroughly as stakeholders in their own learning can have many benefits. Digital technologies can support this where they facilitate communications within learner groups and between learners and teachers. It may be that technologies such as Virtual Learning Environments (see section 4) which provide tools for synchronous 'chat' and asynchronous 'discussion forums' may be an ideal way of facilitating teacher/learner talk in a non-threatening way. In addition, where learners are able to have an input into modes of assessment (in self assessment) they are more likely to be successful in those forms of assessment.

BECTA have recently published a study on learner perspective including recommendations and policy implications which should be considered. Details are available from the BECTA website:

http://partners.becta.org.uk/index.php?section=rh&catcode=_re_rp_02&rid=14551

2.3 Curriculum reform

2.3.1 The National Curriculum for ICT

This section looks at how curriculum and assessment reform could lead to a more personalised curriculum. The focus is mainly on curriculum reform the Secondary sector, but there are issues for the Primary phase too. In addition it looks at how teachers can plan teach and assess pupil's learning using technology to meet their needs.

The DCSF Standards Site has a mini site for personalised learning linked to curriculum initiatives and reform

<http://nationalstrategies.standards.dcsf.gov.uk/personalisedlearning/>

Student teachers and tutors in ITE should regard this as their first stop in looking for news and developments on the personalisation agenda. An introduction to the issue sets out the five components of personalised learning in the form of a presentation that could be used effectively by ITE tutors:

http://nationalstrategies.standards.dcsf.gov.uk/node/83149?uc=force_ui

The five components are split into three 'inner core' components that relate to classroom practice:

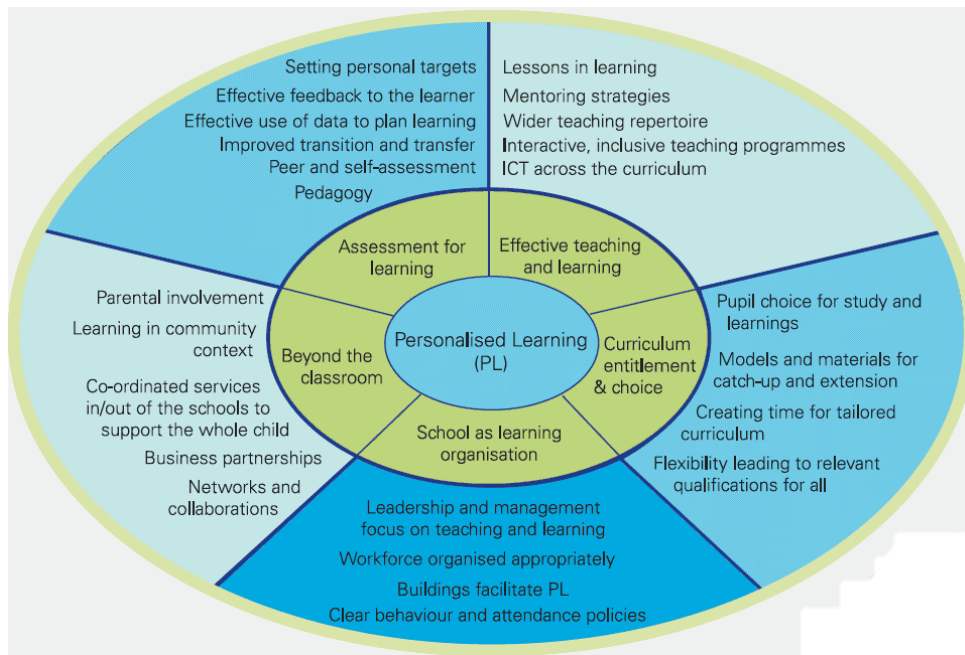
- Assessment for Learning
- Effective teaching and learning strategies
- Curriculum entitlement and choice

Two more components relate to the wider educational experience:

- Organising the school
- Beyond the classroom

A good starting point for resources and reflections upon personalisation is the TeacherNet website

<http://www.teachernet.gov.uk/management/newrelationship/personalisedlearning>



The essence of personalisation is that learning systems conform to the learner and not the learner having to conform to the system of teaching. The “Personalisation and Digital Technologies” report (Green et al, 2005) moves the personalisation debate forward by focusing specifically on the potential of digital technologies in four key areas:

- enabling learners to make informed educational choices;
- diversifying and acknowledging different forms of skills and knowledge;
- creating diverse learning environments; and
- developing learner-focused forms of assessment and feedback.

From September 2008 changes to the Key Stage 3 and Key Stage 4 curriculum have been phased in. These constitute both changes in the pedagogical approach to this phase of education and the curriculum content. Crucially, they also affect modes of assessment. Students should consider the links between the aims and content of the curriculum as set out below and the issues of personalisation. Learning technologies that can be used for personalisation, specifically Virtual learning Environments and mobile devices, and their use, raise some interesting issues. Such issues are referred to in the ICT curriculum and have implications for both ICT as a subject and ICT in other subject areas.

The new aims for the curriculum, which relate directly to the outcomes of Every Child Matters, are that:

The curriculum should enable all young people to become:

- Successful learners who enjoy learning, make progress and achieve
- Confident individuals who are able to live safe, healthy and fulfilling lives
- Responsible citizens who make a positive contribution to society

Students should consider to what extent the ICT curriculum helps pupils achieve these aims, and to what extent pupils' experiences of the ICT curriculum need to be personalised in order to achieve these aims. It might be useful to look at specific parts of the ICT curriculum rather than at the curriculum as a whole in order to focus ideas and discussion. For example, tutors could look at the following elements:

From the Key Concepts of the Key Stage 3 Programme of Study:

1.4 Impact of technology

a. Exploring how ICT changes the way we live our lives and has significant social, ethical and cultural implications.

b. Recognising issues of risk, safety and responsibility surrounding the use of ICT.

From the Key Concepts of the Key Stage 4 Programme of Study:

1.5 Critical evaluation

a. Recognising that information must not be taken at face value, but must be analysed and evaluated to take account of its purpose, author, currency and context.

b. Reviewing and reflecting critically on what they and others produce using ICT.

In addition the Key Stage 2 National Curriculum for ICT introduces some of the issues and topics raised by these elements of the Secondary phase of the ICT curriculum. Specifically:

From the Key Stage 2 Statutory Content:

Exchanging and sharing information

3. Pupils should be taught:

a. how to share and exchange information in a variety of forms, including e-mail [for example, displays, posters, animations, musical compositions]

b. to be sensitive to the needs of the audience and think carefully about the content and quality when communicating information [for example, work for presentation to other pupils, writing for parents, publishing on the internet].

Curriculum documents should be considered by students, for example, the Review of the Primary Curriculum, KS3 changes, 14-19 reform. While the changes at Key Stage 3 are now embedded in schools, reform in the 14-19 age range as a result of the Tomlinson Report of 2004 is ongoing with a drive towards offering more flexible and diverse routes through education for those nearing the end of their schooling learn. In late 2008, the publication of the Independent Review of the Primary Curriculum seems destined to indicate significant curriculum and pedagogical change in the Primary phase too.

Links on TTRB to related articles on curriculum reform
Primary

<http://www.ttrb.ac.uk/ViewArticle2.aspx?anchorId=11860&menu=17832&ContentId=15062>

KS3

<http://www.ttrb.ac.uk/viewarticle2.aspx?contentId=13333>

KS4

<http://www.ttrb.ac.uk/ViewArticle2.aspx?anchorId=11860&menu=17832&ContentId=14213>

2.3.2 ICT supporting learning in other subjects

While personalisation raises issues for ICT as a subject in itself, student teachers should also consider how ICT is used in other subjects and how this relates to personalised learning. In 2004, as part of the KS3 curriculum reform, a guide to ICT in other subjects across the curriculum was introduced. The overview and guide for management for this initiative is available at:

Link to ICTAC initiative on the Standards Site

<http://www.standards.dfes.gov.uk/secondary/keystage3/all/respub/ictac>

Secondary school ICT teachers may be involved in helping develop whole school ICT policy and practice. In particular, teachers of ICT need to develop pupils' transferable ICT skills, in order that they are able to apply what they learn in a variety of curriculum subjects. In considering this issue, tutors in ITE might ask the trainees to look at specific ICT tools and application and how they might be included in other subjects and in whole school pedagogical approaches. Two good examples (discussed further in section 4 of this unit) are how schools can make use of virtual learning environments and mobile technologies in this way, especially the impact that such technologies can have on pupil assessment. The following questions might be useful:

- In what ways could online testing via a VLE help secure and develop pupils' subject knowledge in Science?
- How could mobile learning technologies such as phones or PDAs help develop pupils' work in Geography?
- How could electronic portfolios support cross-curricular learning?

Trainees might like to refer to individual subjects' ICTAC documents available at the above website to support their discussions.

Including ICT across the Curriculum in meaningful ways has long been an aspiration. Where ICT can contribute in other subjects it enhances both pupil's ICT skills and the subject itself. As far as the personalisation agenda is concerned, ICT could be used in other subject areas in two ways, firstly to support learners with tasks they would find difficult without the technologies (for example screen readers for dyslexic students in English). However a major aspect of personalisation across the curriculum would be the application of Virtual Learning Environments (VLEs). This would be further enhanced by the ability of pupils to access the VLEs from a variety of mobile

devices enabling pupils to access learning materials and support in different places and at different times both during and before and after traditional face to face teaching sessions.

Link to ICT across the curriculum resources

<http://www.standards.dfes.gov.uk/secondary/keystage3/all/respub/ictac>

Link to New Tutors Website resource on virtual learning

<http://www.ict-tutors.co.uk/index.php?sec=3&tp=3&layout=1&ts=4&findstring=virtual%20learning>

2.4 Assessment for learning and ICT

Effective use of Assessment for Learning is the first of the key components in the DfES Personalised Learning guidance. Understanding what pupils know and can do is the first stage of any teacher's drive to make learning more personal. The TLRP report contains several useful case studies that examine the impact of teachers' working towards a more personalised approach. In one case study, which considers InterActive Education, the TLRP team looked at how advanced technologies can promote learning in classrooms. Crucially, it looked at how student engagement with ICT lead to a greater understanding of what they knew about subjects such as mathematics:

*"However, we have found that extended individual engagement can lead students to acquire idiosyncratic knowledge which is at odds with the intended learning. For example, when a group of primary school students were investigating the properties of a parallelogram through interacting with geometry software, they recorded the following:
"It has four sides; they are like train tracks, they are parallel; it doesn't have any right angles; it's the colour turquoise, it can be a diamond"*

All of these statements are correct, but not all are appropriate within the context of school mathematics."

Digital technologies offer a range of tools for assessment, and some schools are now making use of quiz tools on their VLEs. Discussion boards can also be good ways of gathering pupils' ideas.

In a study of student empowerment Kelvin Tan asks whether student self-assessment empowers or disciplines students (Tan, 2004). He concludes that student empowerment can only be realised if the ways in which we use self-assessment practices are first understood and it is realised that they do not necessarily become independent learners if the constraints and expectations are prescriptive or even mandatory. He explains that even though student self-assessment is a popular practice for enhancing student empowerment in the assessment

process that some writers have even warned that students' participation in the assessment process may discipline, rather than empower, students. His paper examines the issues of power that underlie student self-assessment practices.

The Association for Learning Technology (Roberts et al, 2005, p5) reports that e-portfolios are one means by which governments are seeking to build knowledge economies. The Department for Education and Skills assert that they seek to "Provide integrated e-portfolios [for Schools] by 2007" and to provide, "A personalised learning space, with the potential to support e-portfolios available within every college by 2007-08" (DfES, 2005). It has been suggested that the European Commission should develop a portfolio system as a method for lifelong learners to demonstrate their formal and informal qualifications and competence. Reasons given for the interest in these developments include:

- reducing contact time while also increasing the quality of contact time;
- increasing learner autonomy and self-direction;
- stimulating reflection and deep learning;
- helping lifelong learning; and
- facilitating progression of learners within and between institutions and between national education systems.

2.5 Issues for reflection and consideration

This section deals with a number of important areas for discussion when considering personalisation of learning. Students should consider the relevant parts of the curriculum, as set out section 2.3.1 and how they could develop their own personalisation practice in planning and delivering teaching.

2.6 Key Documents

DCSF minisite on Personalisation

<http://nationalstrategies.standards.dcsf.gov.uk/personalisedlearning/>

Teachernet Website on Personalisation

<http://www.teachernet.gov.uk/management/newrelationship/personalisedlearning>

b. The Futurelab Handbook about Learner voice

<http://www.futurelab.org.uk/resources/publications-reports-articles/handbooks/Handbook132>

c. The Futurelab Learners' Charter

<http://www.futurelab.org.uk/resources/publications-reports-articles/opening-education-reports/Opening-Education-Report201>

d. The Teaching and Learning Research Programme (TLRP)
commentary on Personalised Learning
http://www.tlrp.org/documents/personalised_learning.pdf

BECTA report on Personalising Learning and the Learner perspective
http://partners.becta.org.uk/index.php?section=rh&catcode=_re_rp_02&rid=14551

3 What is personalised learning? When and where personalised learning takes place

3.1 Personalisation in school

Personalised learning also means making the school student-centric. Effective learning must inform classroom layout, school organisation and the overall ethos (Roberts et al 2005). One aspect of the Every Child Matters agenda is “engaging and helping parents in actively supporting their children’s learning and development”. The home-accessible learning platform is one way in which you can provide access for the parents of your students to your teaching materials and assessments. “For secondary schools, the core offer is similar [including study support, family learning and parental support opportunities], encouraging schools to open up facilities such as sports, arts and ICT” (DfES, 2004, p3).

DfES (2004) *Every Child Matters: Change for Children in Schools* London, UK: Department for Education and Skills

Another area of particular interest to ICT teacher trainees includes the contribution made by the use of computer hardware to personalisation. For example, a graphics tablet or remote keyboard can be given to a student to demonstrate to the rest of the class. Pupils can be involved in talking about and demonstrating their achievements without the emotional or physical issues of having to go and stand in front of the class. As their confidence grows they might let a pupil use the mouse and keyboard to carry out the computer operations as they give their exposition from the front of the class. This gives some pupils a sense of responsibility and the trainee greater freedom to concentrate upon their exposition or management of the class. The general approach meets with the desires of pupil centredness or personalisation in learning.

Contextualised learning has an influence upon personalisation of the individual pupil’s experience. For example, the new generation of map software enables you to provide students with experience of exploring their own area with high degrees of fidelity. Representations using the regular 1:50,000 and 1:25,000 OS notation can now be overlaid with aerial photographs and historical maps. This gives students a sense of their place in history and a better understanding of the overall environment. Measuring tools and the facility to change the colour tone, scale and orientation of maps enables students to use the maps in presentations. For example, they could exemplify environmental factors by labelling a map local to their school. The personal nature of this contextualised learning adds motivation for most students.

3.2 Out of school learning

Personalising learning may also mean that learners engage with school in non traditional settings. This ‘out of school’ learning might take place in the home, or when travelling or in the community and wider environment. Mobile digital technologies are well placed to support this, and the role of the ubiquitous mobile phone is discussed in more detail in section 4. In approaching the topic of out of school learning with student teachers, it might be useful to look at the Futurelab ‘Learners Charter for a personalised learning environment’. This document was produced to encourage debate about what a more personalised learning environment might look like and using it could help students develop a wider understanding of what a ‘learning environment (digital and non digital’ might be like. Crucially the charter sets out the appropriate learning environments that learners can expect, including:

- Access to different teaching and learning approaches and resources that meet my needs
- Access to people who are able to extend and develop my understanding in my chosen areas
- Access to learning environments and resources that enable me to develop my understanding and experience in authentic and appropriate contexts

This meets the Professional Standard Q30; teachers in training are expected to “identify opportunities for learners to learn in out-of-school contexts”.

3.3 Issues for reflection

Students should consider to what extent their own practice currently allows for a personalised learning experience. It might be useful to analyse practice at the level of the lesson plan as well as teaching strategies employed.

Key documents:

Extended schools, where schools are working with other agencies to provide before and after ‘normal school hours’ provision to support working parents and to provide for adult and community learning in schools.

Link to the DCSF website on extended schools

<http://publications.dcsf.gov.uk/default.aspx?PageFunction=productdetails&PageMode=publications&ProductId=DCSF-00786-2008&>

4.What is a personalised lesson? Personalised learning in the classroom

4.1 Existing and Future Technologies and Personalisation

Many of the ICT tools and applications that would support teachers in offering more personalised learning opportunities already exist. However at the time of writing, they are not substantially embedded in the pedagogical approaches of most schools. A report into digital technologies and personalisation is published by Futurelab. The paper can be useful to tutors in ITE to introduce the issues and encourage debate amongst students about how digital technologies might support more personalised learning. The aims for the paper are set out in the introduction:

"This paper aims to contribute to this debate by articulating a range of ways in which we might move forward in achieving these goals, specifically by harnessing the potential of digital technologies in four key areas central to the goals of personalisation: enabling learners to make informed educational choices; diversifying and acknowledging different forms of skills and knowledge; the creation of diverse learning environments; and the development of learner-focused forms of assessment and feedback. "

The paper can be downloaded at the Futurelab website.
http://www.futurelab.org.uk/resources/documents/opening_education/Personalisation_report.pdf

Students should also look at how specific technologies can impact on personalisation and the contribution of mobile technologies and virtual learning environments (VLEs) can make to this. To find out more about these technologies themselves these links may be useful. A more general overview of VLEs technologies is available on this website:

Link to VLE page on New Tutors website

<http://www.ict-tutors.co.uk/index.php?sec=3&tp=3&layout=1&ts=4&findstring=virtual%20learning>

Some discussion of the contribution mobile devices can make is available on the Futurelab website:

Link to Futurelab

<http://www.futurelab.org.uk/resources/publications-reports-articles/web-articles/Web-Article1125>

4.2 Mobile Technologies and Personalisation

Mobile technologies include phones, personal data assistants (PDAs) and laptop computers all of which can be used to create (in text or pictures) information, retrieve information (through a connection to the internet) or communicate (via email, text or web based social networking). Increasingly these are devices to which children and young people have access. However, it should not be assumed that all children have and can use such devices (as the media stereotype might assert) and teachers should be aware of the 'digital divide' which means that for some pupils socio-economic or learning issues might mean that they do not have access to mobile technologies.

The Futurelab and University of Nottingham project "mobimissions" <http://www.futurelab.org.uk/projects/mobimissions> provides an interesting case study of how mobile devices could support personalised learning. In the project learners used the mobile phones to create, access and respond to tasks based in particular places. Learners then rated the missions and each others responses to them. The project explored the link between learners and places, and had many other learning outcomes including encouraging collaborative and peer learning and peer assessment of learning. While this project is specific in its purpose and scope, the technologies used and learning outcomes for the participants could be used in other learning contexts, and would be particularly useful in engaging reluctant learners because of its non school based and collaborative approach.

Another research project, this time carried out by BECTA, looked into the relationship between secondary schools and mobile phones http://partners.becta.org.uk/index.php?section=rh&catcode=re_rp_02&rid=15482 This study found that in the majority of schools, mobile phone use was actively discouraged. It goes on to explore how and why mobile phones might be of use in learning. The study identifies 15 useful things pupils can do with mobile phones:

- 1 Timing experiments with stopwatch*
- 2 Photographing apparatus and results of experiments for reports*
- 3 Photographing development of design models for eportfolios*
- 4 Photographing texts/whiteboards for future review*
- 5 Bluetoothing project material between group members*
- 6 Receiving SMS & email reminders from teachers*
- 7 Synchronising calendar/timetable and setting reminders*
- 8 Connecting remotely to school learning platform*
- 9 Recording a teacher reading a poem for revision*
- 10 Accessing revision sites on the Internet*
- 11 Creating short narrative movies*
- 12 Downloading and listening to foreign language podcasts*
- 13 Logging into the school email system*
- 14 Using GPS to identify locations*
- 15 Transferring files between school and home*

In all of these ways, mobile phones can help pupils learn in ways support their individual needs and provide a more personalised learning experience by enabling them to effectively communicate with other pupils and their teachers and make stronger links between school and out of school learning. Students teachers should consider how such applications could be used to help meet the learning needs of pupils in the schools in which they are placed, although they should be aware that they should, during their training period, adhere to school policies on mobile phones in the classroom.

4.3 Personalised Virtual Learning Environments

Most schools now have access to Virtual Learning Environments (or learning platforms as they are sometimes known), and some have begun to make use of them in various ways, including communication, access to additional and supplementary learning resources and e-assessment. Virtual Learning Environments are used to support face to face teaching on a number of ways, which can be divided into three levels:

- Level 1. The online filing cabinet. At this level, teachers can use the VLE to post files for learners to access and use the notice-board functionality for communications.
- Level 2. The online meeting room. At this level, teachers use the VLE to post files and announcements and make some use of the other communications tools such as email and chat facilities. At this level the wider use of communications tools supports the learners in using the teaching materials and aligning the use of the VLE with their face to face teaching sessions
- Level 3. The online classroom. The teacher makes use of a wide range of communications tools and groups learners to target communications as well as using the assessment tools and monitoring software to assess the impact of the teaching that is taking place via the VLE.

Where the VLE is being used in schools at level 2 or 3, the VLE can support the personalisation of learning. In addition, if the VLE is planned in to teaching schemes at an early stage, its use can support personalisation in face to face teaching too, by supporting learners who need to prepare for sessions, and those that need help afterwards.

The impact of VLEs in schools is yet to be fully researched. A BECTA literature review

http://partners.becta.org.uk/index.php?section=rh&catcode=re_rp_02_a&rid=13640

published in 2003 found that while increasingly extensive use was

being made of VLEs in Higher Education, there was little research evidence to suggest it was being used in schools. However, over the next few years this should change, with a requirement that all schools should be using a 'comprehensive suite of learning platform technologies' by 2010.

Link to BECTA advice on VLE

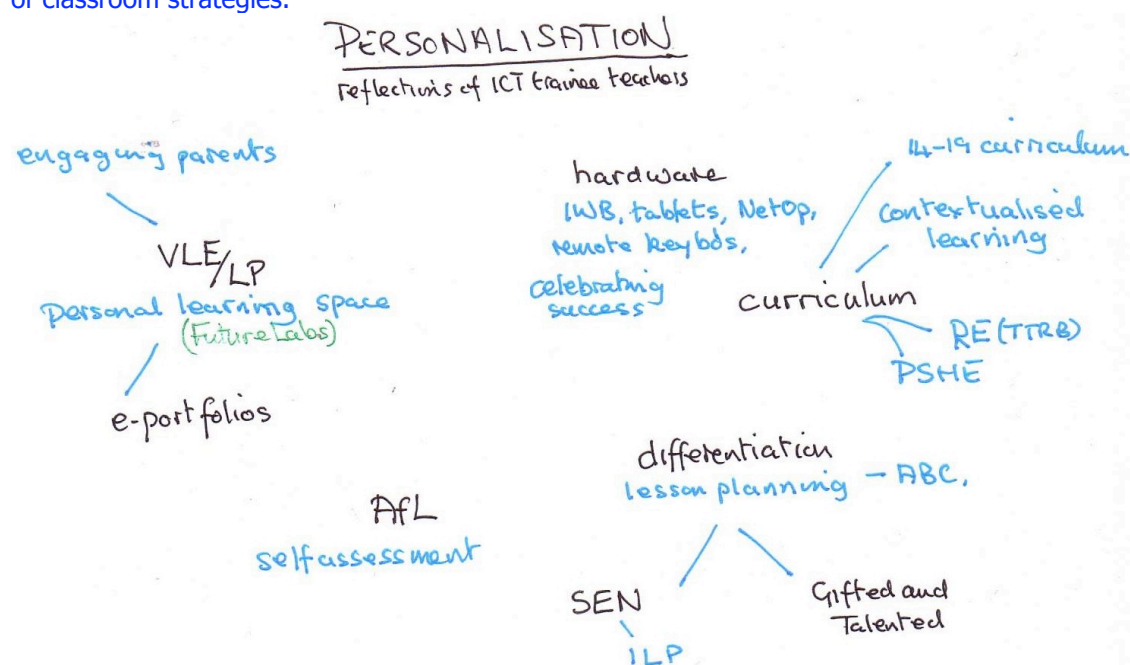
http://schools.becta.org.uk/index.php?section=oe&catcode=ss_es_opp_02&rid=12887

Over the next few years there is likely to be some significant work in schools to build in the use of VLEs. This should enable school and teachers to work on offering an increasingly personalised learning experience to pupils. Teachers of ICT and ICT specialists in schools have an important role to play in this process.

4.4 Issues for reflection and consideration

Students should consider their own reflections on the practical out-workings of the personalisation agenda.

The following diagram, which represents the thinking of a group of 14 ICT teacher trainees after the first 3 months of their training (6 weeks in school) may be a useful starting point. The areas that they did not reflect fully upon include the school structures (timetable, break times, tutorial support, before/after school arrangements) and a more comprehensive listing of classroom strategies.



http://www.epilepsynse.org.uk/pages/whatsnew/pr/show_pr.cfm?id=271

4.5 Key documents

Futurelab reports and papers

http://www.futurelab.org.uk/resources/documents/opening_education/Personalisation_report.pdf

<http://www.futurelab.org.uk/resources/publications-reports-articles/web-articles/Web-Article1125>

5. Select references, key texts and links in personalisation

Bartlett, S and Burton, D (2007) *Introduction to Education Studies*
London: Sage

BECTA report on Personalising Learning and the Learner perspective
http://partners.becta.org.uk/index.php?section=rh&catcode=_re_rp_02&rid=14551

DCSF website on extended schools

<http://publications.dcsf.gov.uk/default.aspx?PageFunction=productdetails&PageMode=publications&ProductId=DCSF-00786-2008&>

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