Quality Enhancement Themes: The First Year Experience

Personalisation of the first year

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Dr Hazel Knox
Ms Janette Wyper

Preface

The approach to quality and standards in higher education (HE) in Scotland is enhancement led and learner centred. It was developed through a partnership of the Scottish Funding Council (SFC), Universities Scotland, the National Union of Students in Scotland (NUS Scotland) and the Quality Assurance Agency for Higher Education (QAA) Scotland. The Higher Education Academy has also joined that partnership. The Enhancement Themes are a key element of a five-part framework, which has been designed to provide an integrated approach to quality assurance and enhancement. The Enhancement Themes support learners and staff at all levels in enhancing higher education in Scotland; they draw on developing innovative practice within the UK and internationally.

The five elements of the framework are:

- a comprehensive programme of subject-level reviews undertaken by higher education institutions (HEIs) themselves; guidance is published by the SFC (www.sfc.ac.uk)
- enhancement-led institutional review (ELIR), run by QAA Scotland (www.qaa.ac.uk/reviews/ELIR)
- improved forms of public information about quality; guidance is provided by the SFC (www.sfc.ac.uk)
- a greater voice for students in institutional quality systems, supported by a national development service - student participation in quality scotland (sparqs) (www.sparqs.org.uk)
- a national programme of Enhancement Themes aimed at developing and sharing good practice to enhance the student learning experience, facilitated by QAA Scotland (www.enhancementthemes.ac.uk).

The topics for the Enhancement Themes are identified through consultation with the sector and implemented by steering committees whose members are drawn from the sector and the student body. The steering committees have the task of establishing a programme of development activities, which draw on national and international good practice. Publications emerging from each Theme are intended to provide important reference points for HEIs in the ongoing strategic enhancement of their teaching and learning provision. Full details of each Theme, its steering committee, the range of research and development activities as well as the outcomes are published on the Enhancement Themes website (www.enhancementthemes.ac.uk).

To further support the implementation and embedding of a quality enhancement culture within the sector - including taking forward the outcomes of the Enhancement Themes - an overarching committee, the Scottish Higher Education Enhancement Committee (SHEEC), chaired by Professor Kenneth Miller, Vice-Principal, University of Strathclyde, has the important dual role of supporting the overall approach of the Enhancement Themes, including the five-year rolling plan, as well as institutional enhancement strategies and management of quality. SHEEC, working with the individual topic-based Enhancement Themes' steering committees, will continue to provide a powerful vehicle for progressing the enhancement-led approach to quality and standards in Scottish higher education.

Norman Sharp
Director, QAA Scotland

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Dr Hazel Knox
Ms Janette Wyper

1 Executive summary

This project examines the policy background of personalisation; explores the concept of personalisation as understood by a range of practitioners drawn from across the United Kingdom (UK) higher education (HE) sector; reviews relevant literature on personalisation within an educational context; discusses a number of illustrations of practice that exemplify personalisation; and presents six case studies to illustrate initiatives that have been designed to personalise the first year student experience at different UK higher education institutions (HEIs). On the basis of the information sourced, a number of key recommendations for senior managers and policy makers, for academics and practitioners, and for students, student officers and student associations are made.

While the term 'personalization' is familiar within the context of education in the United States (US), 'personalisation' is not a familiar term within UK HE. Hence, this project has sought to contribute to an understanding of personalisation through a series of workshop discussions and individual interviews with academics and practitioners across the UK HE sector. These discussions were structured around a student life cycle approach to the first year experience

The first year student life cycle identifies eight stages in the first year experience of new entrants to HE: pre-entry; induction; first few weeks; first assessments; end semester one; end semester two; resits; and transition to next year. These stages are broadly sequential although the timing of each stage will vary between individuals and institutions.

Four main reasons for undertaking work on personalisation of the first year student experience were identified from workshop discussions and individual interviews:

● to counter the effects of large class sizes
● to acknowledge individual learning styles
● to engage and empower students
● to exploit the potential of new technologies.

The workshop discussions and individual interviews also sought to identify the strategies in place to address personalisation of the first year student experience. The outcomes of these discussions are presented as brief illustrations of practice. In addition, six personalisation initiatives are presented as case studies showing how the key reasons for personalisation have been addressed within different contexts.

The case studies illustrate personalisation in a variety of practical contexts.

Case study 1: Personalised integrated learning support at the Open University aims to build a holistic model of online learning support in order to strengthen students' identification with their chosen subjects/programmes, to support their success and to address issues of employability.

Case study 2: Preparatory resit examination programme at the University of Dundee aims to support students with resits through a structured, personalised revision programme not only to help students prepare for resit examinations but also to prepare them for success in future studies.

Case study 3: Empowering the learner through enhanced engagement at Napier University aims to encourge students and to enable them to take personal ownership of their learning.

Case study 4: Bachelor of Arts (BA) (Honours) Learning Technology Research at Anglia Ruskin University aims to develop students' capacity for meta-learning by empowering them to personalise their learning experience through designing, controlling and reflecting upon their learning and critically re-learning in new contexts.

Case study 5: Personalising assessment at Oxford Brookes University aims to empower students to make responsible choices of assessment methods by encouraging them to explore their preferred learning styles and equipping them to build on their strengths and develop their weaknesses through assessment.

Case study 6: Online learning materials to accommodate heterogeneity in student abilities, aptitudes and aspirations at the University of Edinburgh aims to provide students with flexible access to learning materials, which they can personalise in use to explore topics in depth or breadth depending on their current state of knowledge.

From the feedback reported in the case studies, it is evident that students value personalisation, whether this is by having choice within the curriculum, access to online resources for use in their own time and place, or personalised support to make good earlier failures in academic performance.

The report's key recommendations are grounded in the case study materials. A number of recommendations are made for:

- senior managers and policy makers
- academics and practitioners
- students, student officers and student associations.

The recommendations for senior managers and policy makers emphasise that personalisation of the student experience is particularly important during the first year in HE.

HEIs should develop support structures utilising new technologies to provide information, advice and guidance to first year students, thus equipping them with knowledge of support resources and empower them to become less needy as their studies progress.

HEIs should develop and implement policies on the use of social software and personalised learning environments.

HEIs should invest in staff development and ensure that all staff involved in researching pedagogical change have appropriate reward structures and career progression pathways.

HEIs should guard against an over-reliance on project funding to stimulate change but should devise policies and implement strategies for the long-term enhancement of the first year student experience.

The recommendations for academics and practitioners emphasise that students value personalisation of their first year experience.

Staff should acknowledge the diversity within current student cohorts and the fact that not all first year entrants are equally well prepared for HE.

Staff should make space in the curriculum to teach students how to learn and give them time to learn how to learn, particularly if they are first generation entrants into HE and have little social and cultural capital resource.

Staff should take steps to empower their students by creating a student-centred curriculum through which students can take control of, and responsibility for, their own learning.

Staff should use new technologies innovatively for learning and teaching, not just as a tool for content delivery.

Staff should be reflective practitioners and involved in action research based on their own pedagogical practice.

The recommendations for students, student officers and student associations emphasise that participation in HE is a two-way process within which students and staff jointly carry responsibilities to personalise the learning experience.

Students should engage not only with the academic curriculum but also with the broader aspects of their first year student experience and be proactive in giving feedback and participating in opportunities to become involved with institutional decision making.

Students should take responsibility to be a resource, sharing experience within the classroom and sharing materials and sources of support.

Students should participate in buddying schemes to help personalise the first year experience for other students.

A brief literature review exploring the effects of massification of HE, learning styles, the engagement and empowerment of students and personalisation within an electronic environment is presented in Appendix 1.

The literature review argues that, as a consequence of widening participation and the massification of HE, there is greater heterogeneity in twenty-first-century student populations compared with those of 20 years ago. This diversity is evident in the differing backgrounds, ages, educational qualifications, abilities, aptitudes, attitudes and expectations in students who enter the same cohort. The transition into HE is now not

from the traditional school-leaving majority but from a cross-section of society who require HE to increase employability. Thus, continuing to treat students as if they are a homogeneous group is no longer appropriate. There is a need for fundamental change across the sector and a focus on personalisation of the student experience in order to ensure that students feel as if they are each treated as an individual and that they belong within the sector.

Listening to the student voice has not been a strand of this project, although student feedback has been included as an integral part of the case studies. There is evidence that students value personalisation of their learning experience and that the benefits manifest in engagement with their studies, motivation and self-confidence. Empowering students to be autonomous and independent learners also has beneficial consequences in terms of giving them control over important aspects of their own learning.

2 Introduction

The Scottish Higher Education Enhancement Committee (SHEEC) selected The First Year Experience as an Enhancement Theme for 2006-07 (QAA, 2006b). Nine projects were commissioned. Two are sector-wide discussion projects:

- sector-wide discussion: the nature and purposes of the first year
- student expectations, experiences and reflections.

Seven are practice-focused development projects:

- curriculum design
- formative assessment
- peer support
- personal development planning
- personalisation
- scholarship skills
- transition.

The 'Personalisation of the first year' project examines the policy background of personalisation; explores the concept of personalisation as understood by a range of practitioners drawn from across the UK HE sector; reviews relevant literature on personalisation within an educational context; discusses a number of illustrations of practice which exemplify personalisation; and presents six case studies to illustrate initiatives which have been designed to personalise the first year student experience at different UK HEIs.

The themes which emerge from the case study materials are identified and form the basis for a number of recommendations for senior managers and policy makers; academics and practitioners; and students, student officers and student associations.

A brief literature review is presented in Appendix 1. As the term 'personalisation' does not refer to a specific concept, the literature review is indicative rather than comprehensive and focuses on material that is recent, pertinent to HE and of particular relevance to the understandings of 'personalisation', which emerged from the empirical research undertaken.

It is important that this report is not viewed in isolation but, rather, as one strand of the suite of QAA projects exploring the first year student experience. A holistic overview of the outcomes of all projects could produce recommendations for practice that have a real impact on enhancing and transforming the first year experience for students.

3 The policy perspective on personalisation

3.1 Introduction

While 'personalization' has been a term in common usage within school and college education across the US for some time, 'personalisation' is a relatively new concept in educational terms across Europe and the UK.

> Personalisation is an idea currently working its way through the public realm - in health, social care and education. At its heart it is about ensuring that public services are offered in ways that are responsive to individuals and have been tailored to their specific needs and interests. (Merton, 2006, page 7).

Personalisation has recently become a key concept in the UK government's vision for public service sector reform and a number of important policy documents have been produced and policy debates aired. Personalisation is seen as crucial to the ongoing development of state provision in health, social care and education.

Leadbeater (2004) argues that the term has a number of meanings in the context of public services including giving users more say in navigating their way through services; giving users more direct say over how money is spent on services; and viewing users not just as consumers but as co-designers and co-producers of services. He argues that personalisation lets the genie out of the bottle (see Leadbeater, 2004) in that it implies not just providing individuals with a choice of services but also actively engaging them in designing those services and determining what they deliver and how. Leadbeater explores how this concept can be applied to education and argues that personalisation is a powerful tool for promoting learning and encouraging students to become co-producers of their own learning.

3.2 Schools and further education

Within the context of school education, there have been a number of major policy documents addressing the potential benefits of personalising the educational experience. These include:

- *Higher Standards, Better Schools for All*, DfES (2005)
- *Leading Personalised Learning in Schools: Helping individuals grow*, NCSL (2005)
- *Schooling for Tomorrow - Personalising Learning*, OECD (2006).

These publications emphasise the importance of addressing individual needs within the school curriculum, supporting learners to enable success and giving them a real say in their learning. However, in seeking to realise the vision of personalised learning:

> The central challenge for us is how we resolve the tensions between a universal system and personal needs… between excellence and equity and between flexibility and accountability, in a way that delivers for all. (NCSL, 2005, page 9).

Personalised learning aims to provide an integrated model for schools to enable them to meet the widely differing needs of pupils, and is seen as a vehicle for transforming the experience of disadvantaged pupils as well as enriching the learning of the most gifted and talented. Personalisation, therefore, is multi-faceted and pervades all aspects of school life. It embraces the pedagogical issues of teaching, learning and assessment strategies; the provision of flexible curricula allowing breadth and choice; and the provision of an environment, culture and ethos that is learner centred and inclusive (Miliband, 2006). While these elements of personalisation are outlined in the context of schools, they could equally be aspirations and goals for further or HE. They are implicit in the DfES (2006) publication *Personalising Further Education: Developing a vision* where personalisation is characterised by:

- responding to the needs of the whole person by anticipating, identifying and addressing each learner's needs and responding with personalised support that removes barriers and delivers success

- seeking and responding to views of the learner in ways that deliver an excellent learning experience, support employability and enhance personal development

- responding to the needs of local community and employers through a flexible curriculum and tailored approaches to respond to the needs of hard-to-reach groups

- raising the ambitions of all learners by enabling them to make informed choices based on an understanding of their long-term goals

- supporting every learner to become expert by fostering the learner's ability to negotiate with tutors and achieve to their highest potential

- encouraging individuals to take responsibility by providing approaches and tools to enable them to become independent and effective learners

- fostering openness and trust where learners help shape services and the organisation.

These facets of personalised learning clearly draw on the work of constructivist and social constructivist theories (Bruner, 1996), which emphasise the importance of learning as a process that involves social interaction, the incorporation of prior learning and environmental factors into the learning process, the active engagement of the learner, and the ability to reflect on learning. From this perspective, learning ability is not fixed, but capable of development. The challenge is to foster an environment within which that development can most effectively take place.

3.3   Higher education

Comparable production of policy documents and stimulation of debate on personalisation within the context of UK HE has not yet taken place. However, similar challenges remain to be faced, for example how to ensure that all entrants to HE benefit from their learning experience and reach their full potential.

The starting point for this report is to contribute to the debate on what personalisation means within the context of HE, both from the theoretical point of view of trying to better understand the concept and from the practical point of view of identifying activities and initiatives that illustrate personalisation in practice.

4 Investigating personalisation

4.1 Introduction

In order to further develop an understanding of the concept of personalisation within the HE context, a sector-wide consultation was undertaken. The information gathered has greatly informed the content and direction of this report. A student life cycle approach was adopted for the exploration of strategies to personalise the first year student experience and to provide a theoretical framework within which to conduct the investigation and to identify case study materials.

4.2 Methodology

A qualitative approach was adopted for gathering data. An unstructured interview protocol (Appendix 4) was devised to explore the concept of personalisation as understood and put into operation by a range of practitioners across the UK HE sector. The protocol was used as the basis of four participative workshops (Appendix 5) and in individual interviews with 12 members of staff from a wide range of UK HEIs (Appendix 2). Workshop participants and interviewees represented a mix of academic teaching and support staff.

This approach was a productive methodology leading to an examination of the concept of personalisation and resulting in a range of interpretations, rather than the formulation of a definition of the term. The underlying rationale was to work towards an understanding of the concept within the UK HE sector and to initiate discussions of different activities, which demonstrate personalisation of the first year student experience. As a result of the workshop discussions, a number of potential case studies and illustrations of practice were identified. Further possible examples of personalisation in practice were identified as a result of the email circulated by QAA and posted on the Enhancement Themes website.

There were many initial expressions of interest, all of which were followed up. However, some of these potential leads did not subsequently materialise, largely because of a lack of clarity about the basic concept of personalisation and a lack of use of the term. However, it could be argued that this lack of an accepted definition is a strength with regards to how personalisation is put into operation across the sector. The lack of definition indicates that the concept is not foregrounded in academic discourse but is sufficiently embedded in practice to be useful, rather than being a buzz word. Thus, personalisation is open to interpretation as is appropriate to different institutional circumstances and situations. Hence, in order to identify case studies, a pragmatic approach was taken with a key question posed to all contributors: What is the concept of personalisation upon which this initiative is based? The full case study template is included in Appendix 7.

4.3 Findings

The initial question at workshops and in interviews was **'what do you understand by "personalisation of the first year"'?**

There was no consensus understanding of the concept of personalisation among the workshop participants and interviewees. Indeed, many struggled with this 'amorphous' or 'slippery' concept and some frankly admitted 'I don't really know!'. One response received to a request for a case study or illustration of practice was 'Not sure what personalisation is! If you let me know maybe I could find something...'.

The following list gives a flavour of the short responses provided:

- 'making it relevant'
- 'recognising the individual'
- 'building confidence'
- 'demystifying university'
- 'providing a meaningful experience'
- 'creating a sense of belonging'
- 'encouraging interaction'
- 'helping with transition'
- 'being supportive'
- 'promoting engagement'
- 'not losing sight of the person in this age of technology'
- 'empathising'.

More expansive explanations of the concept of personalisation included:

- 'Personalisation to me is what we do to create students' own identities in the context of the university environment and the curriculum.'
- 'For me, it's seeing students as whole individuals and recognising that being a student is only one facet of their lives.'
- 'Personalisation means creating an environment where the student feels like an individual, not just a number, and feels like they belong to part of a community.'
- 'Personalisation is the co-production of knowledge between the learner and the tutor, therefore all prior learning comes into the situation and contributes to what happens next. This, of course, introduces diversity and the need for learner-centred HE. Learner centred means recognising and valuing the fact that even within a mass HE system, learning is a personal experience.'

Thus, the initial emphasis when exploring the concept of personalisation is on the student as an individual, as a person, as a member of a learning community.
There was a suggestion that in order to personalise the student experience it was important to identify the major sub-groups within diverse student populations.
In this regard, personalisation was seen as 'seeking homogeneous solutions to heterogeneous situations'.

However, after debate there was general agreement that while it was important to recognise the heterogeneity of student cohorts, personalisation was much more than treating identifiable sub-groups of students differently one from another.

There was also debate on whether or not personalisation meant dealing with students on an individual, case-by-case basis. Some respondents were adamant that 'personalisation is not one-to-one, we have to think of more resource-efficient approaches than that'.

Whereas others were equally certain that only if there was investment at the fine grain level of the individual student in the first year would the benefits of personalisation be realised in later years.

> ...personalisation is most essential at the outset. The investment of time, effort and money at the outset is what is needed to ensure that later on students are equipped to be independent and autonomous learners. The present system, which is largely reactive to student need, makes our students more needy as their studies progress, rather than less so. If we equip them in the first year, we'll reap the dividends in later years as they become more independent, more autonomous and therefore less needy. (Quote from workshop/ interview participant.)

Despite different views of what personalisation means, once foregrounded in discussion there was agreement that it is an important concept and that institutions should strive to personalise the student experience:

- 'Yes, personalisation is important to ensure their retention.'
- 'It's necessary to personalise to promote engagement, to avoid isolation, drift, loss of motivation, disconnection, withdrawal.'
- 'The potential benefits of personalisation include involvement, engagement, interest, contributing, feeling ownership, progressing, completing, enjoying, achieving.'
- 'Personalisation is important from the institutional perspective, to get the institution to think about what is offered to students and to justify this. There should be better outcomes for students and the institution, better progression, better learning.'

The latter two quotes neatly draw together the mutually beneficial consequences for both institutions and students that may accrue from personalisation by implicitly underlining its importance as a way to enhance the student experience, and thereby increase retention and progression.

A further dimension to the challenge of developing an understanding of the concept of personalisation is presented by the fact that there is a range of alternative terms capturing much of the sentiment of personalisation, but which are not entirely synonymous. These alternatives include 'individualisation' and 'customisation', each in its own way not clearly defined or commonly understood. The scope of discussions did not extend to differentiating between these terms.

As noted above, each case study was predicated on a concept of 'personalisation' provided by the lead institutional contact. Table 1 lists the initiatives to personalise the student experience, which are described in detail in case studies 1-6 (Section 5) and the definitions of personalisation provided.

Case study	Concept of personalisation
1 Personalised integrated learning support at the Open University	Personalisation is making a mass teaching system individual by tailoring teaching and learning support to the needs of the individual student.
2 Preparatory resit examination programme at the University of Dundee	Personalisation is treating students as individuals and at the same time encouraging them to accept more responsibility for their learning by identifying achievable personal goals, and working towards these in a way that encourages autonomy.
3 Empowering the learner through enhanced engagement at Napier University	Personalisation is acknowledging that students each have a unique experience and encouraging them to appreciate this through reflective activity and the collation of a portfolio of artefacts, thus empowering them to participate in decision-making processes relevant to their studies.
4 BA (Honours) Learning Technology Research at Anglia Ruskin University	Personalisation is allowing students to steer the content of their modules and their programmes at all stages by acknowledging that learners learn best when their learning is relevant, situated and social and that learning occurs through not only content but also through the process of learning itself.
5 Personalising assessment at Oxford Brookes University	Personalisation is student-centred learning and involves giving students choice and empowering them to make responsible decisions.
6 Online learning materials to accommodate the heterogeneity in student abilities, aptitudes and aspirations at the University of Edinburgh	Personalisation is allowing students freedom to choose their own route through learning materials by selecting for themselves the breadth and depth to which they explore them, thus exploiting the possibilities of the online environment to add value to the learning experience.

Table 1: concepts of personalisation on which case studies are based

The most comprehensive attempt to explain personalisation and its different facets was:

> Personalisation refers to the creation and use of a learning environment that both supports the individual learning journey and acts as a social space for professional, individual and collective purposes. In this sense, personalisation can also be seen as the opposite to 'alienation' and 'generalisation'. Thus, personalisation, in particular in the first year, contains elements of:

- academic personalisation: dealing with learning and learning demands at/in HE
- social personalisation: dealing with being in HE and alien environments
- professional personalisation: learning with and from others (tutors and peers) (Quote from workshop/interview participant.)

Largely due to the particular participants at workshops and in interviews, there was no discussion of the use of personalisation within electronic learning environments. As will be discussed in Appendix 1, this is a huge area of development across the sector. However, it was widely recognised that HE provision has been slow to react to changing demands, the changing student marketplace and, in particular:

> The changing use of new technologies in the everyday lives of today's students. They all have their personal web spaces and are very familiar with a whole new way of sourcing materials and, arguably, a whole new way of learning. We need to catch up with these times. (Quote from workshop/interview participant.)

An important issue which was discussed in some detail at one workshop concerns the student perspective and the responsibilities that being a student carries. It was agreed that in reality:

> There's a limit to how much you can personalise, students have to accept that they are part of an institution and have responsibility to go by its requirements, rules and regulations. We can offer help and support to individuals, but they also have to be proactive in helping themselves. The student attitude 'I don't understand what I have to do' may indicate genuine confusion or it may be that they're 'at it'. It requires staff expertise to decide which. It's not up to staff to identify what students need. That's harsh, but it's realistic. Students also have a responsibility to find things out for themselves. (Quote from workshop/interview participant.)

4.4   Analysis and discussion

Six key themes emerged from analysis of the data. These themes summarise staff perceptions of the pertinent reasons for personalising the first year student experience.

> **To counter the effects of large class sizes which have arisen in the wake of widening participation and massification of HE**. 'Personalisation is being recognised as a person, an individual, not just a number. Being individually recognised is important but is difficult with huge groups of students. It's all about feeling included and supported. Students should not be left floundering, all thrown in together to sink or swim. They need to feel "somebody knows I'm here" and to know where to go for help.'

> **To take account of the preferred learning styles of individual students.** 'Instead of firing students through a system, personalisation means we try to recognise and cater for individual needs and cater for individual learning styles. If we have diagnostics for learning styles, we can work towards "real" student-centred learning.'

To engage and empower students by adopting pedagogies that are student centred, thus shifting the axis of power from the institution, its staff and its curricula to the individual student. 'We can't empower our students if we don't engage them, and we can't engage them if they don't feel they belong, either in our university or in HE, so personalisation means getting to know our students and making them part of our academic community and giving them the opportunity to tailor the course to their own needs, to exercise choice.'

To exploit the potential benefits of new electronic technologies. 'Personalising provision means exploiting technology but, nevertheless, not losing sight of the individual student. Technology is not the whole solution.'

To address issues of transition. 'Personalisation should provide a means of purposeful communication between the learner and the provider, the student and the tutor. Personalising this process should enhance confidence and motivation and help the student manage the transition into a new educational environment.'

To maximise the benefits to the student of personal development planning (PDP). 'Through PDP students can personalise and take responsibility for their learning. Fundamentally, PDP is a process, not a product, so it can be used to support the personalisation of learning through facilitating the selection of pathways through learning that suit the individual learner. Whatever system we use, the more personalisation is allowed the more students will take ownership of their PDP and the more they'll make it their personal development portfolio, not a personal development portfolio.'

In turn, four of these themes laid the groundwork on which the case studies (Section 5) were based, that is, personalisation as a strategy for:

- countering the effects of large class sizes
- acknowledging individual learning styles
- engaging and empowering students
- exploiting the potential of new technologies.

The themes of Personal development planning and Transition are the focus of two projects within the First Year Enhancement Theme's suite of practice-focused projects and are reported on by Miller et al (2008) and Whittaker (2008) respectively, and hence are not investigated in further detail here.

Many other perspectives on personalisation could have been explored, for example:

- the impact of allowing students to tailor-make their programmes of study by taking advantage of flexible provision and exercising choice (QAA, 2006b), which is explored in 'Curriculum design for the first year' (First Year Enhancement Theme project, reported by Bovill, Morss and Bulley, 2008).
- the value of bespoke feedback on assessments (QAA, 2004), which is explored in 'Transforming assessment and feedback: enhancing integration and feedback' (First Year Enhancement Theme project, reported by Nicol 2008).

- the role of one-to-one 'buddying' (Peat et al, 2001), which is explored in 'Peer support in the first year' (First Year Enhancement Theme project, reported by Black and MacKenzie, 2008).

- the development of individual identity through academic writing (Ivanic, 1998; Lillis, 2001), which is explored in 'Introducing scholarship skills: academic writing' (First Year Enhancement Theme project, reported by Alston et al, 2008).

As is indicated above, the theme of personalisation pervades the whole gamut of perspectives on the first year student experience. This interrelatedness with other projects is a strength that could be explored when all reports are available.

4.5   The first year student life cycle

4.5.1   Introduction

A student life cycle model (adapted from Layer et al, 2002) was proposed as a framework within which to discuss personalisation of the first year student experience.

There was a general consensus among staff that this was an appropriate approach; however, there was debate about the number of stages that could be identified and the length of each stage. In particular, the length of the initial settling-in period (the 'first few weeks' stage in figure 1) was subject to much discussion, with some staff considering this to be a two- or three-week period and others arguing that it usually took much longer for first year students to feel settled into university life.

There was some agreement that the onset of the first assessments marked a transition into a new phase in the first year and thereafter the stages were primarily marked by examination diets. A number of respondents drew attention to the resits stage, which lasted over the summer period for students who had to undertake this stage. Figure 1 provides a useful summary of the discussions that took place and provided a framework to structure discussions on initiatives designed to enhance the first year student experience through personalisation.
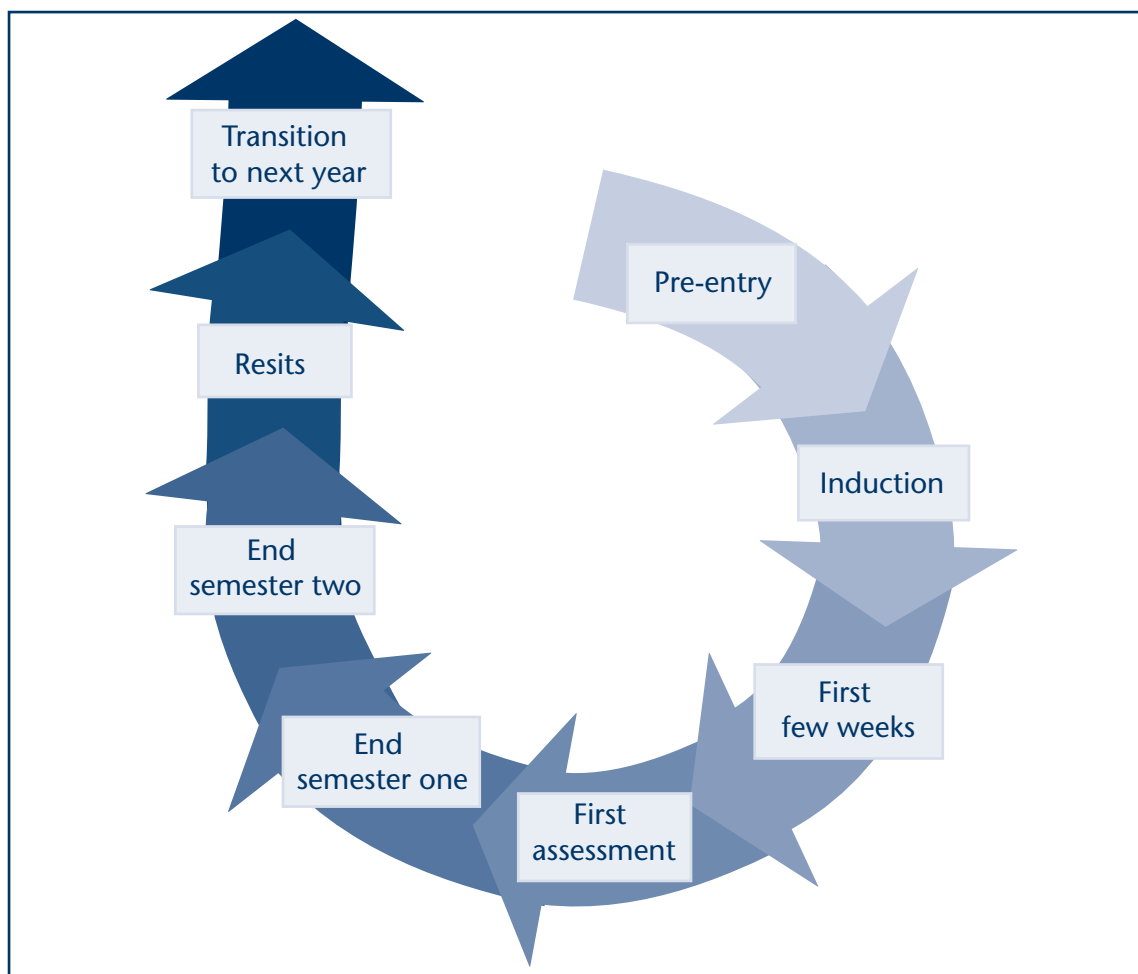
Figure 1: student life cycle model applied to the first year experience

There was agreement that the first year in HE is crucial in this regard:

> Right from the start, we need to make the student feel like an individual, yet part of an institution.

> It's in the first year that students are most likely to think "this isn't for me" so we need to keep their interest going and make sure they are equipped to continue and that they anticipate success. (Quotes from workshop/interview participants.)

Following discussion of the concept of personalisation and the proposed framework of the first year student life cycle, workshop participants and interviewees outlined initiatives within their institutions, which were designed to personalise the first year experience. Table 2 summarises the range of personalisation initiatives and the stage at which each has most impact.

In sections 4.5.2-4.5.5, some of the initiatives noted in table 2 will be discussed as illustrations of personalisation in practice. However, in all but one of these initiatives, the term personalisation was not in use but was deemed appropriate following workshop discussion or interview.

Stage in first year student life cycle	Personalisation initiatives
Pre-entry	Pre-entry blogs Maintaining contact with applicants through personalised webpage Personalised pre-entry support Information Technology tuition personalised to meet subject-specific needs
First few weeks	Guidance in module choices Individual choice of topic for project work Curriculum choice Personal emails and text messages Group work Tutorials Personal tutor meetings 'Skills' modules and/or workshops PDP Attendance monitoring Peer mentoring/buddying One-to-one support in specific subject areas (eg mathematics) Virtual learning environment (VLE) Discussion boards Proactive personalised support Learning to learn
First assessments	Formative assessment and personalised feedback Early assessment
End semester 1	Email and text messages to congratulate and/or encourage
End semester 2	Year end personal interviews
Resits	Resit support

Table 2: sample of initiatives to personalise the first year student experience

As table 2 indicates, some activity takes place at the pre-entry stage (see Section 4.5.2), although for many institutions there is a silence gap with contact only being made to acknowledge applications and communicate the essentials of making offers, acknowledging acceptances and providing joining instructions and details of orientation/induction programmes.

Over the first few weeks many initiatives are in place across the sector to personalise the early experience of students entering HE, but again it must be emphasised that many of the examples of practice discussed in workshops and with individual members of staff were not grounded explicitly in the concept of personalisation but were, rather, forthcoming following discussion of this concept and how it could be manifested. The wealth of initiatives at this stage reinforces the perceived importance attached to engaging students from the outset of their learning experiences. It is over the first few weeks that students are most likely to feel the impact of entering a mass system and to develop lasting attitudes towards their studies.

4.5.2 Pre-entry

The potential benefits of providing opportunities to learn more about university life ahead of entry were generally acknowledged. Suggestions included providing the chance to attend lectures, make campus visits and meet current staff and students. There was widespread involvement of all institutions in these activities under the banner of widening participation, but little was going on which was course-specific and designed for applicants who have already accepted a place. Changed procedures at some institutions were perceived to be counter-productive when viewed in the light of beginning the process of personalisation in terms of getting to know students, ahead of their actual arrival at university:

> Pre-entry, we do nothing. We have a centralised admissions system which militates against getting to know anything about students before they are "deposited" in front of you. We used to go out to schools and colleges and get to know where our cohorts were coming from, but this no longer happens. It's all done centrally, not at the subject level. (Quote from workshop/interview participant.)

Some innovative activities were suggested that could effectively begin the process of acclimatisation to and identification with HE, for example devoting part of the institutional website to blogs on 'my thoughts about going to university'.
Such activity reduces the silent gap between application, offer, and admission and starts the process of engaging students with the university and with their chosen subject ahead of their actual arrival on a real or virtual campus. This kind of practice is quite widespread in the US.

> **Arizona State University (ASU)**: students are encouraged to get connected ahead of their arrival (http://students.asu.edu/orientation). By activating their university account students can access:
>
> - ASU Interactive (www.asu.edu/interactive) the university's real-time website
> - myASU, which has customisable content and makes courses and online communities available through an online portal ('much like "my Yahoo!" only for ASU')
> - their personal email and personal ASU webpage.

There is evidence that UK HEIs are beginning to exploit the potential of the web as a tool for personalising the student experience from the point of enquiry, application or acceptance.

The Robert Gordon University: on the Undergraduate Interest Page (http://emt.askadmissions.net/rgu_ac/emtinterestpage.aspx?ip=uginterestpage) all potential students are asked a series of questions about themselves and their interests. This information is used to create a personalised webpage, based on expressed interests, which then becomes a personalised channel of further communication with the university.

The University of Abertay Dundee: students are encouraged to become active participants in choosing and creating personalised support content by completing an online interactive quiz. The types of pre-entry advice students receive and the support materials they are recommended to look at vary according to the responses made to a series of questions. A mid-semester follow-up is under development for use as a tool to help guide students around the support website and the range of resources available. Future plans, following the development of an applicants' portal, are to embed the quiz into WebCT to track usage and users' results and to send out follow-up texts/emails based on their responses to the questions.

Further information from: J.Staal@abertay.ac.uk.

These latter two examples of practice illustrate mass or adaptive personalisation where individual choices are made from a pre-set menu of options, thus individuals actively choose and create content (see Appendix 1 for a fuller discussion of different types of personalisation within electronic environments).

However, HEIs are not just using new technologies for communicating with their students, they are increasingly using them for teaching and learning purposes, for example through VLEs and personal learning environments (see Appendix 1). Therefore, it becomes increasingly important that students are equipped with the necessary IT skills to meet institutional demands. Some institutions require that an IT course or module has been successfully completed prior to graduation, regardless of level of skill on entry or discipline studied, whereas some other institutions tailor-make IT tuition for the individual student.

Crichton Campus Dumfries: the START-IT programme, a West Forum-funded project, is designed for students who plan to study a specific subject at university but do not have the IT skills appropriate to that discipline area. Student learning is personalised to meet the needs of their individual situations. Each student decides what and how much to learn and each is individually supported face-to-face and by telephone by a student advisor. Each student is provided with a laptop loaded with basic interactive self-teach software, including written instructions and voiceover explanations. The software both teaches skills and promotes independence by providing instruction in the use of, for example, help functions and menus.

Further information from: studentservices-dumfries@uws.ac.uk.

4.5.3 First few weeks

As table 2 indicates, there is much activity going on to personalise the student experience over the first few weeks. During this time, it is important that students confirm to themselves that they have made the correct choice of institution and correct choice of course; that they start to engage with their studies; and that the process of empowering them to become independent and autonomous learners has begun.

Initially, it is essential that students enrol for courses and modules that meet their needs and increasingly HEIs are recognising the value of flexible provision and student choice.

> **Napier University**: major curriculum changes are to be introduced in 2007-08, which will allow students to personalise the content of their degree programme through module choices. Five types of modules will be available:
>
> - compulsory modules for all students for their particular programme
> - university-wide co-curricular modules available to all students regardless of their programme. These include using PDP, work-based learning or extracurricular activities as the basis for credit (for example volunteering in the community), and independent study modules (where students select their own topic, set their own learning outcomes, adopt their own approach and choose the format of their final submission)
> - approved option modules, determined by programme designers and available to all students on the programme
> - other optional modules; students can negotiate to take any university module by agreement with their personal tutor
> - study abroad modules for students who wish to spend a period of study at another HEI.
>
> Further information from: t.finch@napier.ac.uk.

The overall size of an institution is an important consideration in the context of personalisation. In small institutions, staff and students may know each other personally and thus there is less danger of students feeling lost. This also has implications for how curricula can be delivered and the extent to which personalisation can be achieved.

> **Glasgow School of Art**: The Studio is both a non-modular teaching unit and a physical and social space. Instead of hot-desking, each student is assigned a personal space (that is a piece of wall on which to display work) in a larger studio space. Desks are provided for common use and the space is further subdivided into smaller areas to encourage group interaction.
>
> Personalisation of the student's work is enhanced by the use of project briefs, which act as triggers for students to explore a particular issue or problem to which they are to find a personal solution or expression. In the first year several projects have been undertaken to increase this process of engagement and research, and the personalisation of expression.
>
> Students are encouraged to spend time in The Studio developing skills and interrogating their project briefs through making. This close relationship to and

interaction with peers and with their own work strongly encourages students to think about what they are doing and why. The Studio encourages students to develop and maintain their own motivation for their studies and their development as a professional maker (artist, designer and architect). It also urges students to take ownership and authority of their work. In this sense, The Studio is a facilitative environment that enables and enhances the development of attachments to peers and tutors and also to the discipline and profession. In short, The Studio creates a learning community.

Further information from: K.Haack@gsa.ac.uk.

The majority of initiatives designed to personalise the first year student experience are predicated on the assumption that the first year student is a young person, entering HE directly from school, planning to study on a full-time basis and holding traditional school-leaving qualifications. For many HEIs, a considerable proportion of their new entrants do not meet these criteria. Many Scottish HEIs, for example, admit high numbers of students who have studied at college and who enter HE to build on prior credit gained through Higher National Qualifications (HNQs). The Higher National Certificate (HNC) may allow entry to either year one or year two (Scottish Credit and Qualifications Framework (SCQF) level 7 or 8) and the Higher National Diploma (HND) may allow entry to year one, two or three (SCQF levels 7, 8 or 9).

The University of the West of Scotland: the Student Buddy System was set up specifically for students who apply to the university through clearing and articulate into second or third year (SCQF levels 8 or 9) on the basis of prior credit derived from HNQs. For these students, their 'first year' experience is challenging as they fall outside the traditional routes into and through HE. The buddy system provided each student with personalised support to assist in engaging with the university and settling into university life. Using students to help students has been both effective and cost-effective. The university plans to roll out the Student Buddy System university wide next session and offer all new students the opportunity to have a buddy.

Further details from: Anne.McGillivray@uws.ac.uk.

Clearing students are often seen as particularly vulnerable, given the short time between application and admission.

The University of East London: Week4U involves making personalised contact during semester week four with all students recruited through clearing. The aim is to enhance the first year experience of new students and help them settle into and cope with university life. They are telephoned and offered immediate support, including study skills sessions and opportunities to make an appointment to discuss personal or financial issues that may be affecting their studies. A free phone number is set up for students to make return calls. The vast majority of students welcomed the contact. The initiative has now been rolled out to all new entrants to the university.

Further details from: a.egan@uel.ac.uk.

After an initial period of transition, it is important the students begin to feel comfortable with the HE learning environment and the demands.

The University of Aberdeen: the Learning How to Learn course is undertaken by Bachelor of Education (BEd) students within the School of Education. The aims of this course are to help students to develop their understanding of theories of learning and use these to enhance their understanding of themselves as learners. These aims are achieved through the exploration of the individual as a lifelong learner. Personally held assumptions, values and beliefs about learning are challenged as part of a process of shared enquiry. The supportive relationship which develops between staff and students forms an effective community of learners which operates to their mutual benefit.

Further details from: m.freeman@abdn.ac.uk.

HEIs are increasingly relying on new technologies and the web as a medium for teaching and learning.

The University of Edinburgh: a working group was set up within Information Services to help the university make best use of the techniques, tools and services of Web 2.0 technology for research, teaching and learning. This area includes second generation web-based communities and hosted services such as social-networking sites, wikis and folksonomies, all of which facilitate collaboration and sharing between users, thus making bodies of information increasingly easy to search, discover, and navigate over time. All are based on a well-developed, accessible and shared vocabulary that is both originated by, and familiar to, its primary users. The 2007 consultative report is available at www.vp.is.ed.ac.uk/content/1/c4/11/96/Web2.0consultation.pdf, the proposed way forward and further details are available at www.vp.is.ed.ac.uk/Web_2.0_Initiative

4.5.4 End semester one

Throughout the student life cycle, it remains important that students feel they are acknowledged as individuals. This can happen in small but significant ways.

The University of the West of Scotland: within the School of Computing, attendance at classes is monitored and all students receive personalised, colour-coded letters on a regular basis. Green letters are sent to students with satisfactory attendance; orange letters to those who have missed a couple of classes, encouraging them to attend more regularly and offering the opportunity to make an appointment to discuss any issues that may be hampering better attendance; and red letters are sent to students with unsatisfactory attendance, asking them to make an appointment to discuss how they can rectify their situation. A similar traffic light series of letters are posted out when semester one assessment results become available. Green congratulatory letters go to students who have passed all assessments; orange letters are sent to those with one or two re-assessments, along with a 'don't panic!' message, and encouragement to make an appointment and discuss their situation; and red letters are sent to students with three or more resits asking them to make an appointment to

discuss ways forward. A similar procedure is followed at the end of semester two. In addition, all students with resits are individually telephoned over the summer period to encourage them in their preparation for re-assessment.

Further details from: Stephanie.McKendry@uws.ac.uk

4.5.5 Resits

Few initiatives address the issues arising for students who have not been successful in their first year.

The University of Abertay Dundee: they have changed practices for providing support to students with resit examinations. Formerly, resit students received entirely generic reassessment information, but now personalised information is provided, which is specifically related to the types of reassessment they are being asked to complete. The university student records system is used to identify students with reassessments and the mode of assessment being retaken. Students receive personalised letters with key paragraphs inserted according to their records.

This system is being further developed for 2007-08 so that students progressing to the next year of their course, who failed one or more units of assessment, will be alerted to the support available. Thus, it is no longer only failing students who are targeted but also those who may be at risk of failure in the new stage of their course.

Further information from: J.Staal@abertay.ac.uk.

There are undoubtedly many additional initiatives being undertaken, particularly in Australia and the US, which would have usefully enhanced the illustrations of practice included in this report. However, time constraints precluded conducting a worldwide scoping exercise on provision elsewhere.

5 Case studies

5.1 Introduction

The case studies are all aimed at placing students at the heart of the learning experience and supporting them to understand their own learning. As the case studies illustrate, this understanding is through personalisation of the learning experience in a variety of ways. Although, as pointed out earlier, the term 'personalisation' is not in widespread use, all HEIs personalise the support mechanisms they put in place, with the aim of empowering students to achieve their full potential.

The four themes identified in section 4.4 form the backbone of the case studies on personalisation, ie the pertinent reasons for personalising the first year student experience are:

- to counter the effects of large class sizes
- to acknowledge individual learning styles
- to engage and empower students
- to exploit the potential of new technologies.

As noted earlier, these themes are not distinct one from another, but are interdependent and interrelated. In terms of the first year student life cycle, some of these issues are more time critical than others. Thus, it may be particularly important to counteract the impact of mass HE at the start of the student experience when first year entrants may feel quite overwhelmed by the size of institutions and the large numbers of students in their classes. Proactive steps taken to ensure that students are not left to sink or swim can do much to counteract the feelings of being unnoticed in a crowd (see case study 1, section 5.2).

The effect of mass HE and large class sizes will again impact on those students who by the end of the first diet of examinations have failed to achieve success in all assessments. Students with resits may feel isolated and alone, particularly if their peers have been successful and if they have not formed relationships with members of staff during the academic session. Students who have not been proactive in seeking help when struggling during the session may be reluctant to seek help or, indeed, may not know where to go for help over the summer period. Offering a personalised lifeline at this time, when students may feel particularly vulnerable, can be very effective in engaging (or re-engaging) them with their studies (see case study 2, section 5.3).

The effects of mass HE and large class sizes are often mitigated through the formation of small tutorial groups, often under the aegis of a personal tutor (see case study 3, section 5.4).

Much research on student withdrawal indicates that the majority of students who withdraw do so early in the first semester (see for example Bennett et al, 2007) and that the prime reason for withdrawal is having made the wrong choice of course (see for example Yorke, 1999). Thus, there is an urgent need to ensure that as well as feeling

they belong within HE, students confirm to themselves that they have made the correct choice of institution and course. Much can be done through proactive contact and personalised support, which in addition to helping counter the effects of mass HE, can begin the process of engagement by providing information, encouragement and a personal point of contact (see case study 1, section 5.2).

Another important aspect of being treated as a person, despite being a member of a large intake, is to have individual learning styles and preferences recognised. This can happen after the event if students have somehow completed a year of study without acknowledging how they are learning or, indeed, whether they are learning.

Reflection is a vital part of the process of learning, although it may not be until they fail that some students begin to learn how to learn, how they learn and how, therefore, to improve their performance in future (see case study 2, section 5.3). This is also an engaging and empowering experience for students who had not previously thought about their learning in itself, or who had not previously had personalised attention focused on their learning experience.

Learning how to learn is important and is fundamental to being equipped for successful study. Many institutions are seeking to embed tuition on learning per se into their curricula, particularly for first year students. However, relinquishing part of the discipline-based curriculum is not always welcomed by subject specialists. Some radical programmes are fundamentally built on the concept of equipping students to learn, cognisant that the subsequent benefits to learners in terms of autonomy and independence will extend throughout their studies (see case study 4, section 5.5).

Just as different individuals have different preferences for ways of learning, so too do they have different preferences for modes of assessment and the better students understand their personal learning styles, the better they will be able to perform in assessments (see case study 5, section 5.6).

There is great potential for personalisation to engage and empower students during their first year in HE. To a considerable extent, the theme of engagement and empowerment pervades all case studies. By being offered personalised learning support either at the outset of their studies (case study 1, section 5.2) or at the end of the academic session (case study 2, section 5.3) students are encouraged to engage with their studies and, to a considerable extent, they are empowered by having information about help available and, in the latter instance, facing the realities of their individual student experience.

Providing students with an element of choice and empowering them to make informed decisions are also important aspects of engagement, which involve devolving power from its traditional location within institutions, curricula and staff to students. This choice may be exercised in modest ways through optional modules within programmes, or may be fundamental to the whole design and delivery of a degree programme (see case study 4, section 5.5). Devolving decision-making from staff to students, regarding the format of assessments, is empowering for students but requires that staff relinquish some of the power over assessment traditionally held within the curriculum (see case study 5, section 5.6). Similarly, devolving power over the way in which learning occurs is an effective engagement strategy as it allows learners to take control and own their learning (see case study 4, section 5.5).

There are many ways in which technology can be used to deliver a personalised learning experience and hence facilitate student learning. It can be used to extend the range of learning experiences available (see case study 4, section 5.5); to deliver the curriculum imaginatively and flexibly (see case study 6, section 5.7); to identify individual student's strengths and weaknesses (see case study 3, section 5.4); and to forge links between different aspects of the constituent modules of courses or programmes (see case study 1, section 5.2). Technology can be used to personalise the learning experience by allowing individuals to work through materials at their own pace and in their own time, to adopt the pathway through learning materials which best builds on their current knowledge and to receive feedback from materials covered (see case study 6, section 5.7).

The use of technology is also valuable, arguably vital, to engage twenty-first-century cohorts of students. Many of these 'Y2K', 'neomillennials', 'Net Geners', members of the 'Net Generation' (see discussion in Appendix 1) enter HE with vast experience and knowledge of the potential of new technologies and expect their technological expertise and experience to be portable into the HE environment (see case study 6, section 5.7).

The key reasons for personalisation illustrated by each case study are summarised in table 3.

Table 4 links each case study to the stage in the first year student life cycle to which it is targeted and where it has major impact.

Case study	To counter the effects of large class sizes	To acknowledge individual learning styles	To engage and empower students	To exploit the potential of new technologies
Personalised integrated learning support at the Open University	✓		✓	✓
Preparatory resit examination programme at the University of Dundee	✓	✓	✓	
Empowering the learner through enhanced engagement at Napier University	✓		✓	✓
BA (Honours) Learning Technology Research at Anglia Ruskin University		✓	✓	✓
Personalising assessment at Oxford Brookes University		✓	✓	
Online learning materials to accommodate the heterogeneity in student abilities, aptitudes and aspirations at the University of Edinburgh			✓	✓

Table 3: reasons for personalisation addressed by case studies 1-6

Case study	Pre-entry	First few weeks	First assessments	End semester one	End semester two	Resits
Personalised integrated learning support at the Open University						
Preparatory resit examination programme at the University of Dundee						
Empowering the learner through enhanced engagement at Napier University						
BA (Honours) Learning Technology Research at Anglia Ruskin University						
Personalising assessment at Oxford Brookes University						
Online learning materials to accommodate the heterogeneity in student abilities, aptitudes and aspirations at the University of Edinburgh						

Table 4: case studies 1-6 located within first year student life cycle
Duration of personalisation initiative
Personalised support/help available

5.2 Personalised integrated learning support at the Open University

5.2.1 Introduction

Personalised integrated learning support (PILS) aims to build a holistic model of learning support in order to strengthen students' identification with their chosen subjects/ programmes, to support their success and to address issues of employability. Thus, as indicated in table 3, PILS addresses three of the major strands of personalisation:

- to counter the effects of large class sizes
- to engage and empower students
- to exploit the potential of new technologies.

The personalisation of support is mediated through proactive tutor-to-student contact, by telephone, at key times when students are particularly likely to be vulnerable or at risk. Personalised learning support is tailored around the needs of the individual student, thus enabling students to identify their own learning needs, manage their learning more effectively and to take responsibility for their own progress. The back-up to personalised contact is the provision of extensive electronic resources and the creation of dedicated online homes for different subjects.

5.2.2 Case study 1

Title

Personalised integrated learning support (PILS) at The Open University

Contact

Dr Patrick Kelly (P.Kelly@open.ac.uk)

What is the concept of personalisation on which personalised integrated learning support is based?

Personalisation is individualising a mass teaching system by tailoring teaching and learning support to the needs of the individual student.

Target group of students:

Students entering their first year of study with the Open University and joining courses in Psychology or Molecular Science.

Brief description of personalised integrated learning support:

PILS aims to create a holistic model of learner support built around subject areas and programmes of study with three core objectives:

- strengthening student identification with subjects/programmes
- supporting success
- supporting employability.

PILS is one of over 70 Centres for Excellence in Teaching and Learning (CETL) funded by the Higher Education Funding Council for England (HEFCE) for five years, 2005-10.

PILS provides personalised learner support through resources relevant to students' chosen programmes of study, using a range of printed and electronic media, and personal support provided by tutors (and other academic and advisory staff) with knowledge and experience of the range of learner support available.

The key features of PILS are:

- establishment of an integrated cross-university team (faculties, student services, regions, associate lecturers, marketing)
- focus on personalised support within a subject or programme of study
- use of blended learning: face-to-face, telephone, print, email, web, online conferencing.

Personalised	Support is tailored or personalised to the needs, strengths and weaknesses of individual students. The associate lecturer is key to enabling students to identify their own learning needs within their chosen programme or pathway of study. Advisory staff, online and printed resources supplement this process.
Integrated	Three faces of integration are: • ensuring that associate lecturers bring together curriculum and educational support for students in a seamless manner in a sound pedagogic design • ensuring that academic and educational support staff are drawn together in learning-focused teams to inform and align learner support with the curriculum development process • bringing together the advice, guidance and support available to learners in various media to achieve consistency of support.
Learning support	Provision of information, advice, guidance and support through people and resources to help individual students manage their own learning more effectively and gain maximum benefit from their studies through: • informed course choice and planning of a programme of study • increased competence in students as learners, able to take responsibility for their own progress • identification with the chosen programme of study. Activities include: • provision of studentship and learning skills support • monitoring student progress • pro-active intervention at critical progress points • careers guidance and employability • provision of support to students who are disabled or have additional requirements.

Table 5: key activities of PILS

In addition, tutors on the largest level 1 social science and science courses make additional proactive personal contacts at two key times. First, at mid-course, to motivate, review progress and plan ahead. Second, at the time of course results, to review the course and discuss progression. The key activities of PILS are summarised in table 5.

How effective has personalised integrated learning support been?

Quite a lot has been achieved in the first two years to support a university transition from course-/module-based to subject-based learner support. Over 80 associate lecturers (tutors) have taken part in practitioner enquiry/action research activities and a range of printed and online resources has been produced. Personalised support strategies have been adopted and resources developed.

The key features of personalised support:

- programme-related themes are included within the tutorial programme: organising day schools for core programme courses, offering plenary sessions on cross-course themes with guest speakers and offering personalised course choice and careers information and advice
- associate lecturer involvement: around 50 tutors a year are recruited as PILS consultants to explore, through action research or development projects, a number of themes related to the content of PILS
- offered in the context of a programme: programme study advisers are being piloted in a 'personal tutor' capacity, offering additional personalised advice and providing continuity across courses
- Progression Pilot: 500 tutors a year offer additional contact mid-course and end-of-course on the core first year science and social science course.

The key features of resources:

- greater emphasis is placed on the subject/programme area in written and online information
- online subject homes for chemistry and psychology have been created and are accessible to enquirers and students. Other areas are using the templates
- dedicated course choice booklets for the two programme areas replaced the generic course choice booklets and have now been mainstreamed across the university
- course/programme newsletters are sent to students in the period between registration and course start. Diagnostic and taster materials have been developed. Subject-specific study skills materials are being developed. Targeted emails are being sent to students at key points on core courses
- greater emphasis on careers and employability in the context of a programme area. Online careers conferences for science and psychology were arranged. Careers related workshops have been arranged for some day schools.

How is personalised integrated learning support evaluated?

PILS uses a modified RUFDATA framework (Saunders, 2000), which involves a variety of methods including student demographic and completion data, postal and online surveys, focus groups and stakeholder conversations. There is an emphasis on formative approaches seeking quick feedback in order to fine tune further development. The key stages in the process involve:

- tracking the new student experience
- developing a model of the student journey

- identifying areas of risk
- developing and implementing an action plan.

Figure 2 summarises the key activities of PILS, provides an overview of the main messages learned and illustrates some of the student feedback obtained.

How do students respond to personalised integrated learning support?

PILS activities have had an impact on 15,000-20,000 psychology and chemistry students. There is considerable evidence of student satisfaction with a more subject-focused approach, especially the building of subject communities, the integration of generic and course resources, improved guidance on planning a personalised programme of study and employability-related advice. Online subject homes are popular with students. See also figure 2 for illustrative student feedback.

A personal telephone call before a course starts with students who may be vulnerable is associated with a five to seven per cent improvement in pass rates on the first course.

What institutional challenges has personalised integrated learning support presented?

The university is in a transitional stage, and much of its teaching, learner support, systems and processes operate at the level of the module rather than the subject area or programme of study. Working at subject level cuts across existing cultures and practices. A major challenge will be moving out from work in a couple of subject areas to apply the lessons learned more generally.

The process of recruiting, rewarding and engaging associate tutors is a resource-intensive exercise, which also involves tutors in practitioner enquiries and development activities. Tutors are encouraged to engage in examining:

- aspects of their own teaching, for example how students use assignment feedback
- the tensions between student-specific, course-specific, subject-specific and institutional-specific issues
- how best to talk to students
- how to build academic/subject communities
- how to personalise the experience for each student.

What plans are there for further development of personalised integrated learning support?

Plans for the next three to five years concentrate on taking the initial work into three main faculty areas: arts, social science, and science, to build a critical mass of good practice which can be mainstreamed.

Further information available from:

www.open.ac.uk/pils

What we did	What we learnt	What students said
Turtorial and personal support ● Programme Study Advisers piloted ● programme-related themes within day schools 　● tutorials for core courses at the same venue and date 　● plenary sessions with guest speakers on cross-course themes 　● course choice and careers information and advice **Electronic resources** ● programme websites for molecular science and psychology ● diagnostic and taster materials ● targeted e-mails at key points ● video material: student case studies, tutorials, residential school **Printed resources** ● dedicated course-choice booklets for the two programmes ● course/programme newsletters **Careers resources** ● online careers conferences for molecular science and psychology students ● careers information included in course-choice booklets and on website	**Subject communities** ● students and programme advisers welcomed contact ● subject/programme day schools can create a sense of community: 　● talking to students and ALs 　● advice about courses seeing the course as part of a subject/programme **Subject planning** ● subject websites pull things together for students: 　● course choice/planning a programme of study 　● professional recognition and careers 　● information and advice ● subject-course choice booklets provided: 　● in-depth information about the subject(s) students are interested in 　● clear guidance on suggested routes through **Employability** ● many students are interested in study and career links: 　● Careers FirstClass conference very popular 　● careers information in subject websites and course-choice booklets appreciated	'I've only just started but I've never been asked "Am I working towards a named degree or an open science degree or anything".' 'It would be nice when you phoned up that you felt that you were speaking to somebody in a particular faculty…' 'I find it difficult putting it all together with what you want to do at the end, fitting everything into a plan.' **Website feedback** 'I haven't seen these, where are these pages, 'cause that looks really helpful.' **Course-choice booklet feedback** 'This is absolutely fantastic. I wish I'd had this when I started.' 'The OU knows I'm working towards a diploma. I would love to get a mailing that said "the next course you need to do is this". Easy.' 'It is more of a long-term approach, this is more career-based than the course-choice book. This long-term view, you can really see how it's going to unfold, gives you a route through the courses on to an end product for you personally.' 'This is great, professional psychology career choices. This is really good.'

Figure 2: source from the Open University summarising PILS key activities, messages and student feedback.

5.2.2 Issues emerging from case study 1

The challenge of personalisation within mass HE

Students are not a homogeneous group. There is now heterogeneity in all student populations and within the Open University (OU) this is compounded by the relative physical isolation of many students. PILS seeks to engage students at a number of levels: with the OU; with studying; with module(s); and with the overall course/programme. **Broader issue: the impact of modularity and distance learning on student engagement.**

The importance of personalised support

There is a need to guide students to and steer them through the information the institution provides so that they know where to access the help and support they personally need, when they need it. PILS strikes a balance between personalised contact that acknowledges the individual, and the provision of accessible information, for example through web-based resources.
Broader issue: empowering students to access support at the time and place it is needed.

The importance of empowering students to access information for themselves

Each student has a personal agenda for participation in HE. The provision of electronic resources allows students to personalise access to the information they need where and when they need it. Thus, for example, within PILS students' concerns about employability are addressed through participation in web-based conferences and the online provision of careers information.
Broader issue: making appropriate information available.

The identification of key times in first year student life cycle when a personalised intervention may be most effective

Ongoing OU research and evaluation of practice is informing the development of PILS. A model of the student learning journey has been developed, which identifies times when students are potentially at risk of disengagement or withdrawal and when a personalised intervention may be most effective. Between formal interventions, contact is maintained on an ongoing basis, for example via personal emails and newsletters.
Broader issue: encouraging staff to become reflective practitioners and involved in institutional action research.

The importance of dedicated staff

PILS utilises staff who have specific responsibility for its implementation and are central to its development. They are part of a larger team with a remit to inform and align support provision with curriculum development. They therefore require narrow module knowledge, broad subject knowledge, wide programme/course knowledge and familiarity with the full range of institutional resources.
Broader issue: recruiting, rewarding and engaging staff and ensuring that they are supported with appropriate structures that provide career progression pathways.

The need for a multi-faceted approach to personalisation of the student experience

One size will not fit all individual student needs, therefore PILS provides many alternative support strategies including, for example, personalised contact, electronic resources, online subject 'homes', day classes and residential schools.
Broader issue: integrating multiple strands of activity to create a learning community for students.

The need to resolve internal tensions

Traditionally OU support has been focused at the module level. Working at the subject level cuts across existing cultures and practices. The longer term aim of PILS is to build a critical mass of good practice that can be mainstreamed, but not all staff buy into this multidimensional approach. Internal tensions have to be overcome.
Broader issue: rolling out good practice and securing institutional buy-in.

The need for resources

PILS is funded as a CETL, 2005-10. As with all project-funded initiatives, start-up costs are met, but uncertainties surround long-term sustainability.
Broader issue: sustaining, embedding and mainstreaming project-funded initiatives.

5.3 Preparatory resit examination programme at the University of Dundee

5.3.1 Introduction

Preparatory resit examination programme (PREP) aims to support students with resits through a structured, personalised revision programme, not only to help students prepare for resit examinations but also to prepare them for success in future study. Thus, as indicated in table 3, PREP addresses three of the major strands of personalisation:

- to counter the effects of larger class sizes
- to acknowledge individual learning styles
- to engage and empower students.

PREP is designed to meet individual learning needs by encouraging students to accept responsibility for their learning and to work towards achievable personal goals. The benefits in personal terms extend well beyond the resit diet as students also learn about their own preferred learning styles and acquire practical skills to help them avoid failure in the future. Resource efficiencies are gained through the provision of skills workshops and the use of student study buddies.

5.3.2 Case study 2

Title

Preparatory resit examination programme (PREP) at the University of Dundee

Contact

Dr Kathleen McMillan (K.M.McMillan@dundee.ac.uk)

What is the concept of personalisation on which the preparatory resit exam programme is based?

Personalisation is based on treating students as individuals and at the same time encouraging them to accept more responsibility for their learning by identifying achievable personal goals and working towards these in a way that encourages autonomy.

Target group of students:

First year (SCQF level 7) students who have resit examinations, regardless of how many, or in what subject(s).

Brief description of the preparatory resit examination programme:

PREP aims to tackle the fundamental factors that may have contributed to exam failure and which may continue to lead to poor results unless they are addressed constructively and in a fashion that personalises resit preparation for each student.

PREP was conceived five years ago as a response to a perceived need to help a group of vulnerable students at a critical time in their university careers. Previously, once students received the notification of exam failure and information about the resit diet, they were very much left on their own apart from a single advice sheet on revision strategy provided by the counselling service. Preliminary research indicated that students felt lost within a system that seemed bureaucratic, impersonal and did not address their individual situations. It offered no solutions. Now, along with the hard copy of their examinations results, all students with resits receive a PREP information leaflet including a registration form, a leaflet with suggestions for successful revision and exam-taking strategies and a blank revision time planner. This is distributed to all resit students, regardless of their mode, subject or level of study and whether they have failed one or more examinations. All students with resits are advised to attend PREP.

The PREP response was to create a personalised programme that would treat each student participant as an individual by creating a partnership with a personal tutor who would counsel, monitor and, most importantly, listen. Reasons for failure were various but where it was possible to remove obstacles, the PREP team did so. Examples have included covering travel costs to allow the student to participate in the programme and to take the exam(s); providing free accommodation; and providing study locations out-of-hours. Where appropriate, one-to-one subject support has been provided with a subject expert. At an early point in the programme, the study buddy concept is introduced so that students are working in pairs or trios to personalise their learning and revision.

PREP runs for two weeks immediately prior to the resit examinations. Students must register at least 10 days before the programme begins and are asked to commit two weeks of full-time study to the PREP programme. Although some flexibility is possible, they are strongly advised not to take on paid work during this period. There is a £25 administrative fee for the course (student feedback suggests that this fee is sustainable at this level but no higher).

While there is no guarantee of success, PREP helps students tackle their exams positively, with a sense of purpose and of feeling prepared for them. During PREP, students:

- receive advice on revision methods and learn new techniques that promote active revision
- meet with subject tutors
- use a VLE to access resources and discuss issues with tutors and other students
- work closely with other students in a similar situation, exchanging ideas and collaborating in learning
- work within a personalised, carefully planned, revision timetable
- learn how to apply the best exam tactics
- sit mock exams
- immerse themselves in a personalised, positive learning experience.

The PREP timetable (see figures 3 and 4) is flexible and designed to suit individual learning needs and styles. PREP aims to develop the best working pattern for each individual student. Initially, the emphasis is on short sessions on key issues such as personal learning styles, time management and revision strategies. During the first week, students are encouraged to discover where they went wrong in their earlier examination attempts; what their current needs are; and where to find out what they need to know about their subject(s). About 65 per cent of the time overall is devoted to personal revision.

Communication is conducted through a dedicated module on the university's VLE, which provides a facility for announcements; subject-specific workshop and personal tutorial information; and a chat area. Students take online pre- and post-course questionnaires using this system.

Personal tutors provide a brief report on each student and this is forwarded to the appropriate college/school for reference in the event of a student failing all resits and having to submit an appeal against being withdrawn from the university.

PREP is one of a suite of programmes designed to help students in their learning across the cycle of the academic year and on their personal learning journeys. Other programmes include:

- **Gateway to learning**: a series of workshops offered in the week before semester begins, aimed at students who are coming into the university after a career break or direct entrants into the second or third year (SCQF level 8 or 9) of a degree programme, designed to prepare them for their university experience. Topics include taking lecture notes, researching material, participating in tutorials and writing academic assignments.

	Monday 23 July 2007	Tuesday 24 July 2007	Wednesday 25 July 2007	Thursday 26 July 2007	Friday 27 July 2007	Saturday 28 July 2007	Sunday 29 July 2007
Morning	9.30-10.00 Main Block Foyer REGISTRATION 10.00-11.00 D'Arcy Thompson Tower LT WORKSHOP 1a Introduction 11.00-11.15 Break 11.15-13.00 D'Arcy Thompson Tower LT WORKSHOP 1b Learning audit + Library support	9.30-11.00 D'Arcy Thompson Tower LT WORKSHOP 2 Revision methods	Either Subject tutorials (details on My Dundee) or Personal revision	Either Subject tutorials (details on My Dundee) or Personal revision	Either Subject tutorials (details on My Dundee) or Personal revision	Personal revision	Personal revision
Lunch	Library helpdesk open	12.00-1.00 Tower G6 WORKSHOP 3 Medics ONLY Analysing exam questions - MCQ style exams Library helpdesk open	12.00-13.15 D'Arcy Thompson Tower LT, G5, T9 or Scrymgeour 2.12 WORKSHOP 3 Analysing exam questions	12.00-1.00 Stress management workshop Scrymgeour 2.12 — Library helpdesk open	Library helpdesk open	Library helpdesk open	Library helpdesk open
Afternoon	14.00-17.00 Scrymgeour 2.08 or 2.12 PERSONAL TUTOR MEETING 1 (15 min, by appointment) and Personal revision	14.00-17.00 Scrymgeour 2.08 or 2.12 PERSONAL TUTOR MEETING 2 (15 min, by appointment) and Personal revision	Either Subject tutorials (details on My Dundee) or Personal revision	Either Subject tutorials (details on My Dundee) or Personal revision	14.00-17.00 Scrymgeour 2.08 or 2.12 PERSONAL TUTOR MEETING 3 (15 min, by appointment) and Personal revision	Personal revision	Personal revision
Tea/dinner							
Evening	Personal revision	Personal revision	Personal revision	Personal revision		Personal revision	Personal revision

Figure 3: example of PREP timetable

Tips: remember to consult the PREP module on My Dundee on a daily basis to see announcements about subject tutorials. Feel free to arrange your own meetings with subject tutors as appropriate. Try to spend some of your personal revision time working with a PREP buddy. We recommend using a range of different places for personal revision, including university study rooms, libraries and IT suites.
Source: University of Dundee.

	Monday 30 July 2007	Tuesday 31 July 2007	Wednesday 1 August 2007	Thursday 2 August 2007	Friday 3 August 2007	Saturday 4 August 2007	Sunday 5 August 2007
Morning	9.30-10.30 D'Arcy Thompson Tower LT WORKSHOP 4 The rules of the exam game: how to win Personal revision	9.30-10.30 Scrymgeour 2.08 and 2.12 WORKSHOP 5a Mock exams: fundamental aid to success 11.00-12.00 Tower IT Suites C & E WORKSHOP 5b Mock exams: preparing for online exams (CAA)	9.30-10.30 D'Arcy Thompson Tower LT WORKSHOP 6 Exam techniques and exam strategies Personal revision	Personal revision (or student-requested workshop session)	9.30-10.30 D'Arcy Thompson Tower LT WORKSHOP 7a Where you go from here - after the results and beyond 10.30-11.30 D'Arcy Thompson Tower LT WORKSHOP 7b Brains trust - panel of experts	Personal revision	Personal revision
Lunch	Library helpdesk open	Library helpdesk open	Library helpdesk open	Library helpdesk open	Library helpdesk open	Library helpdesk open	Library helpdesk open
Afternoon	14.00-17.00 Scrymgeour 2.08 or 2.12 PERSONAL TUTOR MEETING 1 (15 min, by appointment) and Personal revision	Either Subject tutorials (details on My Dundee) or Personal revision	Either Subject tutorials (details on My Dundee) or Personal revision	Either Subject tutorials (details on My Dundee) or Personal revision	14.00-17.00 Scrymgeour 2.08 or 2.12 PERSONAL TUTOR MEETING 3 (15 min, by appointment) and Personal revision	Personal revision	Personal revision
Tea/dinner							
Evening	Personal revision	Personal revision	Personal revision		Personal revision	Personal revision	Personal revision

Figure 4: example of a PREP timetable

Tips: remember to consult the PREP module on My Dundee on a daily basis to see announcements about subject tutorials. Resits begin on 6 August - follow a personal revision timetable during this period. Throughout this time, maintain contact with your PREP buddies, the PREP organisers, your subject tutors and members of staff from Student Services. The My Dundee module will still be running - consult this regularly. Good luck from all the PREP team.
Source: University of Dundee.

- **Personal academic student skills (P@SS)**: a module for first year students in a range of subject areas. It's offered in semesters 1 and 2; accredited at SCQF level 7 and worth 20 Scottish Credit Accumulation and Transfer (SCOTCAT) credits on successful completion; is designed to lead students through a series of activities such as note taking, academic writing, participating in tutorials, and tackling classroom presentations; and structured to provide opportunities to integrate P@SS learning with work in other modules.

- **Writing programmes**: individual tutorials by appointment help students to develop their writing skills for academic purposes.

- **Advance@Dundee**: 24/7 online support on transferable skills in eight key areas: effective writing; research and problem solving; personal development; studying and learning; information and communications technology; interpersonal skills; basic maths and statistics; and curriculum vitae and careers.

- **Ready, steady, exams**: workshops that focus on learning strategies for exam revision and sitting examinations. They are tailored to meet the needs of non-scientist and science/engineering students.

How effective has the preparatory resit examination programme been?

Clearly, there are multiple variables at play in the achievement of exam success for any student and it is impossible therefore to attribute success to the PREP initiative alone. However, data shows that for PREP 2006 117 students participated, 44 passed all resits (38 per cent) and 30 repeated the year (26 per cent). Statistical data has shown that students who take PREP are more likely to pass than those who do not participate in the programme.

How is the preparatory resit examination programme evaluated?

Students are asked to complete a questionnaire at the beginning of PREP and at the end of the programme.

PREP brings added-value and personalisation to the learning experience for students several of whom comment that this is the first time that they have felt that someone academic was interested in them individually and that they have begun to understand more about the course content. From staff there were comments to the effect that this is the most satisfying and rewarding teaching that they do in the whole year because they feel that they have the time and space to engage the students in an effective learning experience.

How do students respond to the preparatory resit examination programme?

Generally, feedback is positive. Sample quotes from past feedback include:

> I am really glad that I came on the course. My personal tutor was brilliant and I found that the fact someone was there to monitor or support during this time was a very good idea. Another positive about PREP was that it helped to organise meetings with subject tutorials that otherwise I would probably not have arranged. My only negative is that I felt it was too close to the resits and maybe needed to start earlier and continue through to the resits. If PREP is run again

next year, I would be back even if making the course longer means putting the price up. (Hopefully I won't need to come back next year!!
No offence!!) Positive, the atmosphere from all organisers is one of support and understanding and there was not one point where I was made to feel bad about having resits, which was also a great help. Thank you.

Keep up the good work! If next year's participants find it half as useful as I did then I'm sure they will be very impressed indeed.

I have really enjoyed it and made new friends with people on my course, and for once have enjoyed learning.

What institutional challenges has the preparatory resit examination programme presented?

PREP sends several uncompromising messages that probably apply across the sector:

- students take time to make the transition to the learning culture and levels at HE: students may need more help with making that transition and particularly, at an early stage, in taking responsibility for their own learning
- students do not fully understand the expectations of HE: students need to be more aware of the level of effort required at university
- there is a need to give students time to assimilate subject material in order to translate this into understanding and learning: some students had a lack of 'foundation' understanding and there perhaps is a need for closer monitoring of early lecture/tutorial/workshop/lab sessions
- students value one-to-one contact in resolving academic problems: there are no/limited formal mechanisms for students to receive personalised subject support within a module; often informal support is patchy and dependent on the goodwill of isolated staff members
- student problems, academic and pastoral, cover a wide range of issues: students showed a general lack of awareness of support available and students are not generally able to identify when/where they need support. Often students do not feel that their problem is one that relates to university and therefore help from the support services is not applicable
- students fear peer and staff ridicule if they overtly declare their lack of understanding: students retreat from contact with university staff and once they have not turned up/not submitted an assignment/failed an assessment, it is more difficult to opt back in. Staff feel disenfranchised in a system that fails to get students to communicate; once contact is re-established, there is every likelihood that problems can be solved
- students find the lack of constructive personalised feedback on their coursework an inhibitor to understanding what they need to do to improve
- many students thought that there are always right answers: this suggests a general weakness in being able to think critically. Students fail to see reading within and around the course as a responsibility

- some students only begin to focus on their learning when they are faced with failure. The demise of the Duly Performed system is perceived by many staff as a factor in poor student performance. A perception has been identified among students that some only begin to engage with their studies when they realise that they might fail to progress.

What plans are there for further development of the preparatory resit exam programme at the University of Dundee?

There are cost implications for running a course such as PREP. The programme is supported by a part-time administrator who is employed for at least two weeks prior to the course and throughout the two weeks of PREP. All administration, room-bookings, organisation of subject tutorials and follow-up reports are organised through the PREP administration. However, this investment of money, time and effort provides the institution with a returning cohort of students who might otherwise have withdrawn; hence PREP is central to the university's retention strategy.

PREP has run for five years and has been shown to be effective for the majority of participants. However, in an attempt to help students avoid failure at an earlier stage, a new pilot programme, Ready, steady, exams, has been introduced (see page 42).

Further information available from:

www.dundee.ac.uk/learning/prep/index.htm

5.3.3 Issues emerging from case study 2

The need for personalised support at critical times throughout the first year student experience

The effects of mass HE can impact at the end of an academic session when failing students need more than the bureaucratic notification of results and 'one-size-fits-all' information on preparing for resits. PREP brings together many strands of activity that personalise the process of preparation for re-examination including facing up to the reasons for failure, learning about individual learning styles, receiving subject-specific help and combating feelings of isolation by being partnered with a study buddy who is in the same situation.
Broader issue: coordinating and resourcing multiple activities.

The value of a structure to personalise resit support

Everyone who has a resit is sent PREP information outlining the programme and the support it offers. The structure includes the formalities of registration (and payment of a modest fee), academic preparation for re-examination, a process of reflection on previous learning experiences and the removal of barriers that might hinder participation (for example payment of travel expenses). Students are required to commit to this complete package.
Broader issue: students accepting ultimate responsibility for own learning.

The need for evidence of return on investment

The cost implications of PREP are considerable. Three aspects of return on investment need to be taken into consideration: the value to the institution; the value to staff; and the value to students. In institutional terms, this investment provides a returning cohort of students who might otherwise have withdrawn. PREP is, therefore, central to the university's retention strategy. Staff who are involved in teaching on PREP value the opportunity to personalise the support given to individual students and to engage them in an effective learning experience. Students acknowledge that the PREP adds value to their learning that extends beyond the achievement of success in resit examinations and is attributable to the personalisation of the learning experience. Personalised support at a vulnerable time builds self-esteem and enhances motivation for future study.
Broader issue: resourcing and conducting a cost-benefit analysis that examines added-value and not just the financial return.

The need to seek resource efficiencies where appropriate

The combination of in-person contact and utilisation of web-based and electronic resources is a resource-efficient way of personalising the PREP student experience. Personal contact is important in establishing student need and in providing guidance into and through available resource materials. This personalised support enables students to get more out of these other forms of information transmission/communication. Once students know what is available, they can access information as required and are more comfortable communicating with staff and other students via VLE discussion boards and chat areas. Thus, PREP recognises that students are needy in terms of support when they are in the programme, however personalisation at the outset equips them to become less needy as time progresses (and in future years of study).
Broader issue: acknowledging the importance of initial personalisation in setting up electronic systems of support and their value in making students more independent and less needy.

The importance of recognising the unreadiness for HE of many first year students

The 'uncompromising' messages outlined in the case study above are important and highlight the need for personalisation in order to prepare students without financial, social or cultural capital to adjust to the university environment, and to acknowledge their responsibilities within it.
Broader issue: acknowledging the increasing heterogeneity of student populations and their unfamiliarity with the culture and processes of HE together with the reluctance of staff to take on board the impact of these changes.

5.4   Empowering the learner through enhanced engagement at Napier University

5.4.1   Introduction

Empowering the learner through enhanced engagement aims to encourge students and to enable them to take personal ownership of their learning. This initiative illustrates how a range of small personalisation initiatives can be drawn together into a coherent whole that addresses three of the major strands of personalisation:

- to counter the effects of massification
- to engage and empower students
- to exploit the potential of new technologies.

A module has been developed to accommodate contemporary digital technologies and the new literacy skills required by current graduates. In addition, students are offered their own space on WebCT[1] to assist empowerment, engagement and enculturation into the university environment by encouraging its use for portfolio building, reflection and peer discussions. Students have taken ownership of their space and the benefits can be seen in coursework, social integration and spin-off student-led initiatives and extracurricular activities.

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[1] See www.webct.com/products/viewpage?name=products_vista for further information on WEBCT.

5.4.2 Case study 3

Title

Empowering the learner through enhanced engagement at Napier University

Contact

Ian Smith (ia.smith@napier.ac.uk)

What is the concept of personalisation on which empowering the learner through enhanced engagement is based?

Personalisation is acknowledging that students each have a unique experience and encouraging them to appreciate this through reflective activity and the collation of a portfolio of artefacts, thus empowering them to participate in the decision-making processes relevant to their studies.

Target group of students:

First year (SCQF level 7) students entering the School of Computing at Napier University.

Brief description of empowering the learner through enhanced engagement:

Empowering the learner through enhanced engagement aims to encourge students and enable them to claim personal ownership of their learning through the delivery of a professional development module. While PDP is at the core of this initiative, empowering the learner through enhanced engagement illustrates how a wide variety of small personalisation initiatives can be focused and accumulated into a broad personalised learning experience.

In the School of Computing, the annual review of the first year experience (2005-06) highlighted a number of issues. Students expressed concerns about the professional skills module in the first trimester, commenting on the patronising approach, boring content and lack of academic challenge, all of which they felt would impact on the range of skills and abilities that were considered desirable or essential in the computing and information technology industries. Key staff concerns of the second trimester were a lack of student engagement and a dip in retention, attributed to the cessation of personal tutorial groups after the first trimester; poor choice and availability of electives; and the relevance of the workshop module.

After a period of reflection and consultation, the first year team came up with an action plan including a number of key initiatives, incorporating a blended learning approach, to inform and enable personal and professional development and to promote student engagement:

- professional development module
- enhanced induction
- additional electives

- technology-assisted tracking system
- vertical peer learning
- ePortfolio.

Professional development module

This module, taken by all first year students within the School, was conceived with a strong emphasis on PDP and with particular reference to the Effective Learning Framework (QAA, 2005), see figure 5.

The underlying rationale of the approach is to empower students and encourage personal ownership of their learning. The module has been integrated into the first trimester in a manner that utilises and builds upon learning achieved in three other concurrent modules.

The module incorporates a blended learning approach with traditional classroom and laboratory sessions supplemented with web-based learning activities and resources. The module utilises student experiences and artefacts from other concurrent modules and shares common themes with the personal tutorial groups.

The professional development module comprises plenary sessions, tutorials, practical exercises and assessments. Enculturation is fostered through personal tutoring within personal tutorial groups formed during induction week. Each student belongs to a group of 24 that is the basis of all tutorials and practical exercises in the first year. Each tutorial group meets with a dedicated group tutor for a weekly meeting geared towards bonding and socialisation. Professional development is engendered through regular meetings with a personal tutor.

Self-review is enabled through focused learner questions (FLQs) that are firmly integrated into the academic curriculum and used as the basis of the individual learning events/ tutorials. The FLQs have been developed to encourage reflection and facilitate personal development, for example:

- what career opportunities are available in my chosen field?
- how do I get the essential and desirable skills for my future career?

In weekly plenary sessions, a key theme is presented, for example:

- coping with HE
- dealing with assessment.

The theme is explored flexibly in breakout group activities, demonstrations and class discussions utilising electronic voting systems. Presentations are also provided by external bodies, employers, and agencies within the university, alumni and current students.

In tutorials, the learning experience has a very informal approach with tutors selected for their subject-specific knowledge and enthusiasm for their respective disciplines. Students develop knowledge about their chosen subject specialism through activities related to the overall module objectives. FLQs encourage reflection and discussion.

Figure 5: Effective Learning Framework model (QAA, 2005)

In practical exercises, time is used to develop skills in contemporary digital technologies and a range of literacy skills. Students are introduced to the managed learning environment, ePortfolios, blogs and wikis, in addition to the use of more traditional tools such as Word, Excel and PowerPoint. FLQs are used to direct the learning experience towards the key assessment tasks. Diagnostic tools are used to determine the need for personalised support, which is provided by academic staff and a small team of second year student tutors. Extensive use is also made of web-based materials and support tools.

Assessment requires students to demonstrate self-appraisal, critical reflection and planned personal development, which is determined by way of a reflective report, a personal development plan and an associated portfolio of artefacts, all of which are retained by the student, for use as the basis of self-review in subsequent years. In putting together the portfolio, students are required to complete a set of tasks that are used to determine technical skills and competencies; determine and develop traditional and digital literacy; develop professional skills; enable diagnostics; and provide artefacts for the portfolio. Personalised formative feedback provided by the personal development tutor on these tasks help students maximise their achievement.

As part of their personal tutorial group students are also required to develop and give a 10-minute presentation on a topic of their choice. The grading criteria for this assessment are negotiated in dialogue between the students and their tutor.

This level of information given directly to each student, and the importance placed on student input, demonstrates how personalisation of the curriculum can be achieved.

Enhanced induction: focus is on an extension of induction into the early weeks of the professional development module; fostering social relationships between students; and the establishment of personal tutorial groups that will be central to student learning throughout the year.

Additional electives: the elective selection process is incorporated into the professional development module to ensure that the students are aware of the range and availability of appropriate modules. Teaching groups within the School were approached to develop at least two new elective modules. In 2006-07, students identified a specific programming language as a desirable requirement for future employment and were successful in having a new elective developed for delivery in the second trimester. This came about because empowered students approached a receptive subject group leader. This can be considered as a prime example of personalisation of the curriculum.

Technology-assisted tracking system: utilises hand-held technologies to monitor student attendance (see Bowen et al, 2005), which allows fast and effective collation and analysis of the data, thus facilitating early intervention using SMS and email. This was followed up with personal letters in a manner similar to the traffic light system (Smith and Beggs, 2003), pioneered, by Glasgow Caledonian University.

Vertical peer learning: involves collaborative group work between first year students and postgraduates. Topics for subject-specific projects are selected by School staff so that they promote engagement by demonstrably being relevant to both groups of students.

ePortfolio: students are expected to engage in self-review in the later years of study and to this end are required to collate and store their portfolio of artefacts and PDPs. The range of artefacts will include text, images, audio diaries and video diaries, held in an ePortfolio, (see www.blackboards.com/products/Academic_Suite/portfolio.htm) which is fully integrated with WebCT (see www.webct.com/products/viewpage?name= products_vista), the university's managed learning environment with which the students are familiar. WebCT portfolio allows the students to determine which artefacts to include, create different views of their portfolio and control access to staff, students and guests. An associated blog can be used to annotate individual artefacts and reflect on personal development. This helps the student develop their own personal experience and is a good example of how personalisation can be integrated into coursework.

How effective has empowering the learner through enhanced engagement been?

The overall performance of students in the revised module was significantly better than that of the previous year with an increase in students gaining merits (+49 per cent) and a reduction in non-attenders (-53 per cent) indicating improved engagement. Details are provided in table 6.

Outcome	Original module 2005-06 (n=138)	Revised module 2006-07 (n=135)
Merit	39%	58%
Pass	36%	25%
Fail	10%	10%
Non attendance	15%	7%

Table 6: comparison of module results

Success has also been gauged by enhanced engagement exemplified by a range of social activities, a new anime and manga student society, and a new computer programming elective module all initiated by the first year students within the first five weeks.

How is empowering the learner through enhanced engagement evaluated?

An independent evaluation involving informal semi-structured interviews with students, student questionnaires and informal feedback from a group of staff was carried out to assess the impact of the PDP element. The key findings were used to inform the innovations implemented in the first year experience.

Key messages:

- all students providing feedback are strongly in support of the concept of PDP. They liked the idea of an aspect of their programme being about them and their progress

- PDP needs to be built into the programme from the start, rather than added onto it at a later date. Students saw this as a strong indicator of the university's and School's commitment to, and valuing of, PDP

- PDP seems to work best with a well-planned combination of group and individual activities, in particular students liked being part of a small group

- the promotion of PDP was an encouragement for, and reminder to, staff to carry out previously used (and useful) activities, for example diagnostic testing for at risk students, which is now available electronically in an accessible and user-friendly format

- students who had undergone a positive PDP experience talked about having a 'much better deal' than their colleagues who had not. They articulated the benefits as feeling valued and supported; feeling more motivated and committed (by the enthusiasm and commitment of their tutor); having a strong sense of group identity/belonging; having an obvious and natural point of contact; developing an awareness of themselves in relation to where they were aiming/planning to go professionally; and developing an understanding of how their programme could help them achieve their goals - whether these goals were firmly formed or only emerging

- the PDP process and associated activities could provide an effective focus for helping students make sense of their programme by 'joining up' its modular parts.

How do students respond to empowering the learner through enhanced engagement?

The School of Computing has had a personal tutoring scheme for five years but the initiative appeared to have minimal impact on first year retention. A personal tutorial group comprises six students and a personal tutor who meet on a weekly basis. In addition, students can also request individual meetings, routinely receive weekly personalised emails from their personal tutor, and have a group website, which is linked to their personal websites. All these activities help focus on the individual and personalise the educational experience in a resource-effective way.

What institutional challenges has empowering the learner through enhanced engagement presented?

A range of initiatives were set up at institutional, faculty and school level to address the issues of progression and retention. This has resulted in a level of initiative-fatigue that is having a demotivating effect on already stretched staff. Associated with this is an emerging tick-box culture with staff losing sight of the overall picture. It is hoped that the appointment of both a Director of Student Experience and a PDP champion within the School will facilitate a more strategic approach.

A number of academic staff still remain to be convinced about the merits of the new approach. Success is dependent on maximising support across the School and this needs to be addressed by the team. Another issue is the move from personal tutoring to personal development tutoring, and this is to be addressed by better integrating the personal development tutors into the professional development module to provide formative feedback on PDP to their students. To this end the role of the personal development tutor has been formally defined and integrated into the School's personal development plan.

A final point to be considered is that of the empowered student and the evolving staff-student dialogue. Will our existing teaching staff and current approaches to teaching be able to come to terms with the confident student who has taken ownership of their learning and personal development?

What plans are there for further development of empowering the learner through enhanced engagement at Napier University?

In future years it is hoped to introduce the concept of grade negotiation with the learner agreeing both the assessment criteria and final grade. However, experience from the initial delivery would indicate hesitancy within the student body and further support would have to be provided. However, a greater resistance is anticipated from the teaching staff that may consider this a challenge to the existing order.

Further information available from:

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5.4.3 Issues emerging from case study 3

The need to take an overview of institutional initiatives

Where a number of small personalisation initiatives are already in place, rather than developing each in isolation, it may be possible to draw them together into a coherent whole. This requires a focus (in this case, the professional development module) and benefits from utilisation of an overarching framework (here the Effective Learning Framework [ELF]), which brings the parts together into an integrated, personalised curriculum.
Broader issue: reusing/recycling what is already available to engender change and reduce the initiative fatigue felt across much of the HE sector.

The importance of responding to student feedback

The underlying rationale of the approach taken is to empower students to take personal ownership of their learning, hence it is important that the institution demonstrates its response to student feedback in tangible ways. In this initiative, student feedback to, for example, staff attitudes and issues of employability fed into the curricular changes exemplified in the professional development module. Thus, students could see the consequences of their feedback in terms of changes implemented across the whole programme. These changes are consequential upon putting the ELF at the heart of curriculum change. This model requires that students take responsibility by providing a variety of strategies to enable them to self-review, drawing together all aspects of their student experience. The vehicle for continuity across years of study is their ePortfolio, which is personalised and owned. Thus students see the consequences of feedback that affect them, not just the cohort(s) that follow.
Broader issue: enhancing engagement through student feedback.

The necessity to convince staff of the value of personalisation initiatives

Many initiatives, for example PDP and those incorporating personalisation, are not seen to be fundamental to the discipline base of degree courses. Staff remain to be convinced of the value of making time in the curriculum for such activity.
Broader issue: addressing staff resistance to change and of enhancing their understanding of the value of personalisation.

The need to enculturate students into the HE environment

Increased heterogeneity within student cohorts requires that enculturation is located within the academic curriculum rather than delivered as a brief, isolated induction or orientation programme. Enculturation is achieved by personalised support delivered through the allocation of a personal tutor and the formation of small personal tutor groups. A range of activities are carried out through the personal tutor group mechanism including regular group meetings, personalised emails and a group website.
Broader issue: the continuation of a personalised communication system beyond the transition period.

The significance of staff readiness to deal with empowered students

Personalisation results in the empowerment of students, which therefore requires that power be relinquished from where it is traditionally held, that is within the institution, its curricula and its staff. Staff development issues arise in equipping staff to deal with empowered students.
Broader issue: willingness of institutions to devolve some of their traditional power to students.

The perceived benefits of personalisation

Students articulated the benefits of personalisation in terms of its contribution to how they felt valued and supported and how they were better motivated and more committed to their studies. The sense of identity fostered within their small personal tutor groups helped develop their awareness of themselves and their understanding of how their programme could help them achieve their goals.
Broader issue: the contribution to engagement made by personalising elements of the curriculum.

First Year Student Experience QAA Enhancement Theme projects

The emphasis is not only that joining-up a number of initiatives and integrating them into the first year curriculum has enhanced the first year learning experience, but illustrates the overlap between many aspects of this process. For example, linking the roles of personal tutor, personal development tutor, PDP and professional development means personalisation can be tackled in a resource-efficient way.
Broader issue: overlap between strands of Enhancement Theme and an indication that personalisation pervades all aspects of the first year experience.

5.5 BA (Honours) Learning Technology Research at Anglia Ruskin University

5.5.1 Introduction

BA (Honours) Learning Technology Research (BA LTR) aims to embed personalisation at the heart of an entire degree programme. BA LTR is a fully online degree, which develops students' capacity for meta-learning through empowering them to personalise their learning experience through designing, controlling and reflecting upon their learning and critically re-learning in new contexts. Thus, as indicated in table 3, this initiative addresses three of the major strands of personalisation:

- to acknowledge individual learning styles
- to engage and empower students
- to exploit the potential of new technologies.

Students have a high degree of choice within BA LTR and throughout their studies are encouraged to focus on the application of their learning and the sharing of learning experiences with peers. BA LTR uses the workplace as a source of information, the context within which students set their learning.

5.5.2 Case study 4

Title

BA (Honours) Learning Technology Research (BA LTR) at Anglia Ruskin University

Contact

Lydia Arnold (lydia.arnold@anglia.ac.uk)

What is the concept of personalisation on which BA (Honours) Learning Technology Research is based?

Personalisation is allowing students to steer the content of their modules and their programmes at all stages by acknowledging that learners learn best when their learning is relevant, situated and social, and that learning occurs through not only content but also through the process of learning itself.

Target group of students:

First year students entering BA LTR at Anglia Ruskin University. This degree is delivered online.

Brief description of BA (Honours) Learning Technology Research:

This degree aims to develop learners' capacity for meta-learning by empowering them to personalise their learning experience by designing, controlling and reflecting upon their learning and critically re-learning in new contexts.

BA LTR, a fully online degree, was launched in 2003 as an initiative to explore a new blend of learning, which sought to widen access to HE and to enable a creative approach to learning.

Learning to learn or meta-learning is an increasingly prominent feature of HE in the age of supercomplexity (Barnett, 2000). BA LTR is based on a unique learning blend that combines online social learning, work-based learning, inquiry-led learning, patchwork assessment (Winter, 2003) and high degrees of personalisation, see figure 6. Each element of the mix contributes to the learners' developing capacity to become empowered.

Online social learning is noted for its role in enabling learning to be the central focus. Learners are using their own working situations as the context for their learning, hence their learning is relevant and authentic and enables them to transfer skills acquired in the degree course to their working situations. Through patchwork assessment, learners steer away from traditional academic assignment formats towards more accessible, creative, enjoyable meta-learning-focused alternatives. High degrees of personalisation in the learning blend makes learning the object of the learner's focus.

Y2K+ learners need to make sense of multiple information streams, make good decisions when in control and know how and when to re-learn in a supercomplex world. Learners need to LEARN2LEARN, they need to be competent META-LEARNERS.	
How can learners become competent META-LEARNERS? Some concepts from the Ultraversity Project (BA Learning Technology Research, Anglia Ruskin University):	
Patchwork assessment Within a period of learning, learning is rarely linear. There are many influences and steps. Patchwork celebrates the coming together of many strands and does not seek to seemlessly merge these in an illusion, but celebrates the ruggedness of the journey and the strength of the learner to tease out learning from the muiltple and non-linear strands. Learners get to see the process of learning in an honest and highly visible way.	**Reflection and inquiry** As key elements of the programme, learners are encouraged to make sense of the world around them whilst maintaining academic rigour. Rather that imparting knowledge scaffolding inquiry allows learners to control learning. Learners learn that they can learn even in the presence of complexity, unreliant on knowledge provision alone but empowered to make sense of the many sources of knowledge to create relevant understandings. When the moment passes, the skills of inquiry transfer to making new understandings in new places and circumstances with different variables.
Personalisation Learners choose the path to learning and the destination. The act of giving choice is empowering and gives learners a focus on the learning process rather than only the learning.	
Work-based learning A rich, dynamic and complex authentic environment or context adding authenticity to real-world learning.	**Online social learning** Dialogue in community with enhanced depths because of the asynchronicity and bonds of trust developed. Dialogue helps learners to make sense of tasks and knowledge, to negotiate meaning and develop new understanding. On an ongoing basis it enables existing knowledge to be challeged through critcal friendship and thereafter new re-learning and re-negotiation of meaning.

Figure 6: meta-learning in supercomplexity
Source: Anglia Ruskin University.

Students on the degree are called researchers as the course is centred upon individual professionally-based research rather than traditionally delivered content. Researchers undertake a degree pathway that is inherently personalised. A generic degree structure has built-in mechanisms for individual learners to adapt the degree to their own (work-based) context and shape their own research agenda. Each researcher negotiates and personalises the study undertaken, applying modules to their own situations. Learners come from a range of professional contexts (including education, the health service, commerce and self-employed sectors). Therefore, each individual's research and research context is different.

BA LTR is underpinned by a fundamentally co-constructivist philosophy of learning, with the learners' creation and conception of knowledge at the centre, but with an additional emphasis on dialogue and a shared collective responsibility for learning. The emphasis for learning shifts from individuals to the community of learners, thus encouraging effective learning activity, collaboration, responsibility and meta-learning (Watkins et al, 2002).

The community provides an online arena for peer interaction and dialogue and it gives access to researchers for engagement with learning facilitators. As well as the community, researchers are offered a range of supporting tools and resources, which are constantly evolving. Thus, prominence is given to individuality and negotiated learning, independent learning planning, peer review, reflective study modules and action research projects, coupled with principles of collaborative community learning.

BA LTR has technology-enabled social learning at the heart of its design. The online nature of the programme means that the learner experience is routed in an online community located mainly in a VLE. The overwhelming majority of discussions, conversations and exchanges occur in the VLE. However, in the multifaceted online world there are also other channels for discussion and exchange, for example through Skype (a peer-to-peer voice over internet protocol [VOIP]) or through web log comments, which are deemed extensions of the community and are actively encouraged. The group of learners does not simply become a community by chance, but rather by design and through the building of trust. Conversations are planned and instigated, seeded and modelled as part of the course design, as well as occurring through immediate need and spontaneous discussion.

Emphasis is placed on dialogue as a vehicle for learning in the programme design, and also through the assessment criteria, such that the process is rewarded and valued in its own right. Within each module, learners have the opportunity to demonstrate evidence of learning through communication and community. This is not a measure or count of contributions, but rather it is a consideration of the recognisable gains that individuals have made through social learning.

Learners on the course are all undertaking individual research and therefore the common ground for discussion does not lie in talking about what has been learned directly through research and inquiry, for example what has been learned about behaviour management or about the development of systems for improved business administration. Instead the common ground is in a collective consideration of the nature of the task, collective verbal processes of aligning individual contexts with the task

requirements, and later in discussions, about the process of learning that has been undertaken. In effect the shared experience of the community lies in dialogue about the learning process, a focus on learning about learning.

Fundamental to the design of BA LTR is learner choice. Within very broad course parameters, learners make choices about their learning; what their areas of research will be (course content decisions); what methods of research will be used; what the pace of study within modules will be; what media will be used to present data; who their audience will be; and in some modules, what activities will be undertaken to meet the learning outcomes. Placing the learner at the centre and devolving control of the learning experience is central to the course and inherently personalises the learning experience.

Through these avenues of learner choice, learners are obligated to explicitly consider the process of their learning. Learners need to consider and plan for their own learning, reviewing their starting point by examining where they are at, considering the process possibilities (the module requirements) as well as designing milestones or learning goals to be fulfilled. This process is not imposed but is gradually introduced with scaffolding, such that, in the early stages of a learning journey, learners have a detailed map upon which they can develop their plans. In later modules learners take a higher degree of control. Devolving control to learners enables them to 'see' the learning process and participate fully rather than being passive recipients.

The ability to personalise learning to such a significant extent has a great impact on the learners' enjoyment of learning because of the increased relevance of the programme. The motivation and enjoyment resulting from this helps to create a learning culture, a community of people wanting to learn.

From the very outset personalisation is essential as each module has to be applied to the individual's workplace and context. So, for example, in one module investigating the work setting, each researcher produces a portfolio of the nature of their role, assesses the competences needed to undertake it, identifies their strengths and weaknesses with respect of their initial findings and develops areas for further research in subsequent modules. Another module requires learners to undertake a piece of action research in their workplace, thus each travels on an individual research journey but all are bound together by the generic elements of the course and the development of competences.

Another way in which to permit personalisation is through the use of flexible approaches to assessment, using a patchwork approach rather like a portfolio. This gives control to the learners. In addition, learners are empowered to undertake media choices. All media are acceptable for assessment, thus allowing a high degree of autonomy in assessment products.

The increased relevance emerging from high degrees of personalisation acts to increase learners' enjoyment of their learning experience. However, the confidence needed to take control of learning and to make decisions about not only what is learned, but how and where, should not be imposed but rather gradually introduced. As learners better understand their own learning ways and processes they are better positioned to take a greater degree of control in the process.

Figure 7 outlines the areas of conscious design choice that were considered within BA LTR.

work based	inquiry-led learning	community-centred learning
through work or at work or for work	scenario presented or scenario devised	learning through community or learning alongside community
negotiated between HEI and employer or negotiated between HEI and learner or imposed by HEI	personalisation	
	learner choice or learner design	homogenous members or heterogeneous members
vocational or abstract or flowing (between practical and theoretical)	assessment	technology
	authentic or abstract	socially enabling or mechanisation
	learner design, learner choices or imposed	learner controlled or HEI imposed
		established systems or experimental

Figure 7: design choices for BA LTR
Source: Anglia Ruskin University.

How effective has BA (Honours) Learning Technology Research been?

BA LTR has graduated its first two cohorts of students, approximately 150 in July 2006 and 30 in January 2007. It is anticipated that there will be a further 70 graduates at the end of 2007.

It remains early in the course life to consider the career impact on learners, for example how they have progressed or developed in their job role. However, the enablement of progression is tentatively seen to be an effect of the degree on learners in addition to the overwhelming increase in confidence and aspirations among this non-traditional student body.

How is BA (Honours) Learning Technology Research evaluated?

BA LTR is evaluated by the same quality assurance processes as all other programmes within the university, for example through the use of student representatives and organised feedback meetings.

In addition, the innovative nature of the course means that there is a culture of co-research so that all aspects of the course are under consideration and review with a view to improvement. The team of staff who deliver the course are reflective practitioners and action researchers who constantly review and re-plan as a result of ongoing evaluation. Critically, the basis of this culture of constant review is underpinned by dialogue: the ongoing community dialogue encourages ongoing evaluation, learner voice and engagement about how things can be bettered. Of course this process is not flawless, for example occasionally some voices in the community recommend changes that are not agreeable, however, the basis for dialogue and ongoing reflection and change exist. Moreover the textual nature of the community means that suggestions, comments and experiences are available as data in research into practice. In other courses such records would not exist. This data is gathered to better understand the learner experience and how it can be improved.

How do students respond to BA (Honours) Learning Technology Research?

Evaluation of the learners' experiences demonstrates that they focused in their appreciation of personalisation not on the value that this process had for assisting them to be better learners particularly but upon the enjoyment that the control brought. However, guidance is crucially important, especially early in the learning journey. (The following quotations are from students who provided feedback on the experience.)

> Perhaps I am more comfortable being "guided" rather than exploring - at the moment anyway.

The ability to personalise learning to such a significant extent has a great impact on the learners' enjoyment of learning because of the increased relevance of the programme. The motivation and enjoyment resulting from this helps create a learning culture, a community of people wanting to learn.

> Personalising our research also made it more enjoyable to carry out as it was relevant! Learners attain better results when partaking in things they are enjoying, and wanting to do.

BA LTR involves learners undertaking research and systematic reflection upon situations within their work in order to evoke learning. The course also encourages reflection about the learning process itself. There are modules where reflection is the explicit focus of study, developing skills in, and knowledge of, reflection. In effect, modules specifically seek to develop learners as reflective practitioners. In addition all modules contain a reflective element whereby learners are required to consider their learning and how the strategies employed for learning may be developed in the light of their considerations. Learners learn about reflection in both their work and learning practice. Reflection was observed as an empowering process, which helped them to identify areas for, methods for, and approaches to new learning.

> Reflection models have made reflection in all aspects of my life much more focused and structured. I can now stand back away from the problem and critically evaluate the situation, looking at possible flaws and how to deal with them. It helps me to plan for the future now.

> Quite simply I found learning about reflection was revolutionary. It has had a huge impact on my everyday life and I see tangible differences in the way I react to situations as a result.

Control over the pace and order of learning within modules was extremely important for managing learning and having a choice. One of the researchers even said that her learning would be unsustainable if it was not for the level of control that she was afforded in this area. Another suggested that, as with other elements of the course, she had to learn to control her time management. The synchronicity of the community is an important way for learners to exercise control over where and when to learn and how much contribution is made. Similarly, the availability of online resources allowed control over where and when to learn.

Some researchers experience tensions when negotiating learning, tensions between their position in the workplace and their academic needs. There was particular difficulty with establishing the degree of influence that the workplace or individuals therein should exercise over a researcher's learning. There is also a time tension: researchers self-sacrifice to undertake study, juggle family commitments and work alongside the degree programme.

What institutional challenges has BA (Honours) Learning Technology Research presented?

One of the greatest misjudgements about online learning is the time it involves. In general, there is a severe underestimation of the role of the tutor in online learning. Discussion does not just happen, learning does not just happen, learners need to be assisted in the online world by people who are familiar with the landscape and with the concerns of learners. Institutions need to address issues of, for example, the online submission of assessments and staff timetabling to allow the flexibility online learning requires.

A key challenge presented in the development of the course was developing practices that aligned a remote academic team and remote learners with a university-located faculty. All systems that ran on paper needed to be made electronic, representing not just mechanisation but a cultural shift. All face-to-face trips to register at the student union, registry and library were challenged, and solutions were negotiated. This, at times, was immensely difficult. Often new processes had to be devised. The administrators for BA LTR were action researchers too. They took the systems and negotiated change. The systems improved at different rates, some remain imperfect, but also remain the object of review and improvement. The student experience of systems was not always good. However, this was initially overcome by engaging the learners in dialogue to inform improvement.

A major challenge for BA LTR was how to accommodate media-rich and electronic submissions. Again, the learners led the practice. As they created, the course team prepared the electronic handling repositories, which met learners' needs and academic regulations, for example time and date stamping submissions. Having learners as stakeholders and contributors to these processes was immeasurably valuable.

What plans are there for further development of BA (Honours) Learning Technology Research?

BA LTR is an ongoing fully integrated course that currently has two annual intakes. The spirit of research within the course team seeks to constantly improve the provision and develop new possibilities alongside emerging technologies. It seeks particularly to deepen integration and systemic alignment. The course seeks to improve through deeper understandings of learner need and developing conceptualisations of the learning blend.

As well as developing the degree programme, BA LTR also provides a model for others. A key plan is to disseminate through consultancy and research dissemination. With an undergraduate programme based upon this unique learning blend, opportunities for it to operate at other levels are considered as an ongoing extension of the possibilities. Currently, a master's level award is being developed based upon many of the principles and practices of BA LTR.

Further information available from:

www.lydiaarnold.net
www.ultraversity.net
For information on the online MA Education contact anthony.russell@anglia.ac.uk.

5.5.3 Issues emerging from case study 4

The challenge of putting personalisation at the heart of the entire programme

In BA LTR learning per se is the objective, with deliberate design choices at all stages made to enhance personalisation of the learning experience. The eclectic approach of BA LTR greatly empowers learners as personalisation is inherent in all facets: assessment, curriculum, online social learning, reflection. Personalisation is the 'glue' that binds it all together.
Broader issue: taking a radical approach to curriculum design and delivery.

The value of context

BA LTR uses the learners' workplace as a resource for learning. Within this context, 'rich and authentic scenarios' are available as the basis for learning, thus the relevance of learning is reinforced and has immediacy of impact. Reflection, which can only be a personalised process, is also an empowering process.
Broader issue: contextualising learning so that its relevance and applicability is apparent.

The importance of meta-learning

BA LTR is fundamentally about learning to learn, which essentially needs to be a personalised process to be most effective. BA LTR employs a range of innovative strategies resulting in a unique learning blend, combining online social learning with work-based learning, enquiry-led learning and patchwork assessment. This combination enables students to explore their own learning processes and results in the formation of effective learning communities within which students largely become autonomous and in control of their future learning. Devolving control to the learner inherently personalises the learning experience and involves an element of risk taking.
Broader issue: teaching students to learn how to learn, therefore making them less dependent on content and input and less needy in terms of support.

The importance of learning communities

BA LTR openly acknowledges that all students come from different backgrounds (in this case different workplace situations) and are all new to HE. This diversity is used as a strength through the creation of a learning community within which effective learning, activity, collaboration and responsibility can take place through peer interaction and mutual support. BA LTR provides the scaffolding which allows individuals within the community to meet their personalised goals.
Broader issue: acknowledging the importance of social learning and participation in learning communities.

The importance of technology to distance learning communities

Technology is at the heart of the design of BA LTR. A VLE has been created to allow the learning community to have discussions, conversations and exchanges. This online arena encourages peer interaction and is also used as a constantly evolving mechanism for access to support from learning facilitators. Other channels of communication, which extend the learning community, such as Skype and web log comments are actively encouraged. Within the assessment of the course, evidence of learning through communication is valued and rewarded. Thus, the use of technology enables personalisation of the learning experience in innovative ways.
Broader issue: the use technology as a resource.

The motivational benefits of personalisation

Personalising learner choice places the learner at the centre of the process. Within very broad course parameters, learners decide the focus and methods of research, the pace of the study, the media used to present data and, in some modules, the activities that will achieve the learning outcomes. This process is introduced, with support, at the outset, and the value to the learner of such a high degree of control increases the relevance of the programme. The resulting empowerment creates a motivated learning community sharing an enjoyment for learning.
Broader issue: equipping students to be active participants in learning rather than passive recipients of learning.

The importance of students' readiness to use new technologies

BA LTR relies heavily on the use of new technologies. Students must be familiar with and comfortable using a wide variety of software packages. Essentially, they personalise their student experience via technology, including the use of online communication media.
Broader issue: equipping students to deal with new technologies.

The need to overcome administrative challenges

In order to introduce BA LTR, previous paper-based systems had to be transferred to the online environment. Making these changes was time consuming and solutions were achieved through negotiation with administrative staff and the investment of time by BA LTR staff. The student experience of the new system was not always good, however, the belief that the students were important stakeholders allowed their contributions to be included in the review and improvement of the system.
Broader issue: not allowing administration to hinder development and staff willingness to do what needs to be done to make things work.

The importance of staff as action researchers

BA LTR staff are at the leading edge of research into technological developments and their potential application within HE. The knowledge and enthusiasm of staff who are both technological experts and teachers contributes to the success of BA LTR. Through their familiarity with the technologies, staff can see how best to exploit developments to personalise the student experience.
Broader issue: staff as action researchers and reflective practitioners.

The acknowledgement that online delivery is not time saving

BA LTR clearly demonstrates that providing a degree online does not equate with saving time, despite the fact that many institutional approaches are predicated on the belief that this is so. Staff roles change with online delivery; however, there is still a need for the investment of time with students, to be responsive to their queries and to participate in online discussions and debate.

Broader issue: staff development to tackle the technological, pedagogical and responsiveness issues associated with online delivery.

5.6 Personalising assessment at Oxford Brookes University

5.6.1 Introduction

Personalising assessment aims to empower students to make responsible choices of the methods by which they will be assessed through encouraging them to explore their preferred learning styles and equipping them to build on their strengths and develop their weaknesses through assessment. Hence, personalising assessment addresses two strands of personalisation:

- to engage and empower students
- to acknowledge individual learning styles.

This innovative programme is based on sound educational theory and illustrates how giving students choice results in a shift from an institution-centred to a student-centred model of assessment and a shift away from content-centred to problem-centred learning.

5.6.2 Case study 5

Title

Personalising assessment at Oxford Brookes University

Contact

Dr Alison le Cornu (alecornu@brookes.ac.uk)

What is the concept of personalisation on which personalising assessment is based?

Personalisation is student-centred learning and involves giving students choice and empowering them to make responsible decisions.

Target group of students:

First year students entering BA (Honours) Theology and Religion at Oxford Brookes University.

Brief description of personalising assessment:

Personalising assessment aims to empower students to make personalised decisions on the methods by which they will be assessed in the first year:

- encouraging students to explore their preferred learning styles
- linking types of assessment to learning styles
- exposing students to a wide variety of assessment methods.

BA (Honours) Theology and Religion has been operative in its present form for four years. It is delivered by paper-based distance learning, supported by the VLE WebCT. Flexibility is built in through a rolling programme of enrolment, which operates throughout the academic session. Hence, there is no identifiable 'cohort' of students at any given time. There is also a rolling programme for assessment deadlines. Nine weeks each year are designated for handing in assessments. Within the constraints of these nine weeks, students have flexibility over what they hand in and when, provided they complete a Certificate of Higher Education (CertHE) within three years, a Diploma of Higher Education (DipHE) within six years and BA (Honours) within eight years. The programme is delivered in two stages. In stage one, students accrue 120 credits (the equivalent credit to completing the first year as a full-time student) and in stage two, they accrue the remaining 240 credits required for the award of the degree.

In order to gain the award BA (Honours) Theology and Religion, students must successfully complete 24 modules from a portfolio of 38. The extent of module choice is greater at stage two than at stage one. Assessment is tied to modules at stage one. Experience has shown that, to a considerable extent, students choose their modules at stage two on the basis of the type of assessment required rather than on module content and the appropriateness of particular modules for their chosen specialism. Thus, the programme management team faces the pedagogical challenge of how to develop a curriculum when, in practice, assessment drives student choice.

The proposed solution to this challenge is to separate type of assessment from module content, allowing students to choose the type of assessment they submit for each of their modules. Thus, the modus operandi shifts from an institution-centred to a student-centred model. There is a sound educational rationale for this approach in the theories of Knowles (1975, 1980, 1984, 1990) on adult learning, learning style theory (Pask, 1976; Witkin et al, 1977; Belenky et al, 1996) and the demands anticipated to be put upon HE institutions in the twenty-first century (Payne, 2006).

Knowles' theory of andragogy (adult learning) is appropriate as this programme attracts mainly adult students (currently 140 students are enrolled, ranging in age from 19 to 76 years). Fundamental to Knowles' theory is the independent, autonomous nature of adult learning, which is exemplified in students who choose to study by distance learning. Knowles also bases his theory on the principles of motivation to learn; drawing on experience; relevance of learning; and the need for learning to be problem centred rather than content centred. Therefore, allowing students to personalise the choice of assessment that will benefit them most is a sound principle in educational theory.

Pask (1976), Witkin et al (1977) and Belenky et al (1996) argue that individuals have preferred ways of learning and preferred ways of knowing, and these preferences may be relatively stable over time. Thus, some students may revel in the freedom of producing a portfolio and struggle with the constraints of an essay, whereas others cannot cope with a portfolio situation that seems to have no boundaries. The provision of educational opportunities that attempt to match individuals' learning styles with forms of assessment will therefore act to their greatest advantage. Learning styles can also be understood in terms of individual strengths and weaknesses, consequently assessment can play a role in strengthening weaknesses as well as capitalising on strengths.

Payne (2006) argues that HE has a responsibility to equip students for the demands of living and working in the twenty-first century, so the skills acquired through different assessment methods should equip students more satisfactorily than the mere content of programmes as they develop personalised, transferable skills to take into the workplace. Assessment is an important vehicle for learning and to be fully effective should be contextualised and authentic; focus on problem formulation; encourage student autonomy; promote positive dispositions towards learning; and involve students as active agents in the assessment process. In other words, assessment should empower students, give them the opportunity to choose and, even if they get it wrong, to still learn.

Under the present proposals, students will continue to be exposed to a wide variety of assessment tools at stage one, however choice will be introduced into stage two assessments. The 'Types of assessment' handbook will be revised and expanded to provide an introduction to learning style theory as a basis for guidance on how to make sensible choices of assessment method (see extract from draft 'Types of assessment' handbook in case study 5, Appendix 1 below). In addition to a description of how to approach each type of assessment, information will also be provided on the learning benefits of each format, enabling students to make informed choices of the format that most satisfactorily meets their needs from individual modules. An example might be that of a timed essay, which most students hate and has resulted in the ostracism of the modules with this type of assessment. However, the 'Types of assessment' handbook draws attention to the fact that some types of learner (eg 'holists', Pask [1976] and 'deep learners', Marton and Säljö [1976a, 1976b]) might find timed essays developed ways in

which they approached learning new knowledge and information by requiring them to focus on and memorise it, which instinctively they would not do, opting to understand first. Personalising assessment choices allows students to both rely on their strengths and challenge their weaknesses, cognisant that they are doing so.

As the programme team has worked on the proposal, however, it has become necessary to introduce certain restrictions, primarily based on word count (to ensure students do both short and long assignments) and type of module. So, for example, biblical modules necessarily require an exegetical exercise, and an independent study has to be a long assessment of 3,000 words. Further, it would not be sensible to allow students to do a learning log for each module, so this would be restricted to two occasions.

How effective has personalising assessment been?

This proposal is still under development. It had been hoped to introduce these assessment changes for the beginning of the academic session 2007-08. However, the university requires a full revalidation of the programme before these changes are introduced. The programme's periodic review is due in April 2008.

How will personalising assessment be evaluated?

The new form of assessment will be evaluated by seeking student feedback (through, for example, formal evaluation questionnaires and informal WebCT discussion); by monitoring the choices made (which will give an informed understanding of the popular forms of assessment in general, as well as at an individual level) by comparing grades of students 'before' and 'after' and exploring why differences might, or might not have occurred; and by regular meetings of the programme management team.

How do students respond to personalising assessment?

The idea of 'free choice assessment' has been trialled on the programme's WebCT site and has met with cautious approval. One of the posts is copied below, which expresses some of the issues the programme team have had to take on board and consider.

> This is an interesting proposal. I think the flexibility of choosing assessments will alter some module choices and perhaps extend an individual's learning field. On the other hand I would agree with [name] that sometimes we don't always know what's good for us, and perhaps to be obliged to do some types of assessments would stretch us as learners. I of course am being selective here as I exclude the timed essay from that comment! I see you posted an idea about being obliged to do a certain number of each assessments, would this in fact limit your module choices?

> With the proposed new system I wonder though whether we would significantly change our module selection and tackle modules/assessments outside our comfort zone? If the final mark were comprised of the best 12 of 16 modules, I think you would step into new experiences more readily, but with every module counting I think there is an element of safety in all our choices.

> I can't decide which essay to do when given two choices so heaven help me if the new system comes in.

Students have been the driving force simply because in this WebCT discussion they readily admitted that they did choose their modules according to the type of assessment and would appreciate the possibility of moving to a more flexible system.

What institutional challenges has personalising assessment presented?

The university's Quality Assurance Committee has indicated that a revalidation of the whole BA (Honours) Theology and Religion programme is necessary before such an innovative change in assessment procedures can be implemented. The revalidation exercise will take place in April 2008 as part of the programme's periodic review and it is anticipated that the outcome will be approval.

Three challenges that will arise are mentioned. First, one quality issue that will be subject to much scrutiny is how to counteract the assessment strategy adopted by the student who chooses to do all assessment in all modules in the same format. The programme team will actively encourage students to choose alternative formats in different modules, and this will also be encouraged through the text of the 'Types of assessment' handbook, however, this student strategy should not necessarily be considered a problem. Such a strategy, which is perhaps unusual across the modules of any single degree programme, nevertheless meets the educational rationale and criteria for BA (Honours) Theology and Religion, which encourage students to choose a range of assessment formats yet respects their ability and right to make informed decisions based on their own needs, desires and goals.

A second challenge will be to ensure that whatever assessment format is chosen, it will be able to demonstrably meet the stated learning outcomes of the module.

The third challenge will be to ensure that the terminology used in the 'Types of assessment' handbook is clear and unambiguous. It is proposed that, for example, a current module with assessment requirements which stipulate 'a 1,500-word annotated bibliography, a 1,500-word book review and a 3,000-word essay', will be rewritten as 'two 1,500-word assignments and one 3,000-word assignment'.

Advice will also be sought about the quality assurances aspects of subject benchmarking and any other issues identified as discussions continue under these new assessment regimes.

What plans are there for further development of personalising assessment?

The new assessment regime is not yet in place. The aim is to provide as student-centred and personalised a programme as possible in every dimension of the curriculum. Amendments may be required to be made in the light of experience. It is always a delicate balance between giving the students as much choice and freedom as possible, while also ensuring they are adequately supported; that the programme maintains its academic integrity; and that the programme's and the university's administrative systems can cope.

Further information available from:

www.brookes.ac.uk/schools/education/wco/theol-dl.html

Case study 5, Appendix 1:

Extract from draft 'Types of assessment' handbook

To benefit to the maximum, you should spend time looking at the learning styles material available on the web (use the sites cited above) and considering what characterises your own way of learning. You might also like to ask yourself questions such as:

- Do I read first to understand information, or do I read first to gain and grasp information?

- Do I remember facts and figures easily?

- Am I good at critiquing?

- Do I naturally want to believe and understand what I am reading first, before I critique, or do I critique early on, perhaps at the risk of not thoroughly understanding or not having the whole picture?

- Do I find it difficult to separate the wood from the trees, and to identify and prioritise the primary, secondary and subsequent themes?

- Do I work well under pressure? If I don't, how is my learning affected?

- Do I try to get by with the minimum amount of reading?

- Can I tell when I have reached 'saturation point' in my reading? In other words, I know that reference to yet more books is unlikely to give me any more useful information than I have already?

When you have got a reasonable feel for your learning characteristics (and this won't happen all at once; it is something you will need to work at throughout your time of study), then you will be in a position to make choices. If you would like to learn to work better under pressure and to improve your ability to focus on factual information, for example, then you might choose to do three or four timed essays for your assessment. If you tend to think serially rather than globally, and find it difficult to prioritise themes into primary, secondary and so on, then the conventional essay might be a way of working at this.

Essays

Essays give you an opportunity to develop and demonstrate your ability to:

- investigate a topic

- identify relevant material from within and beyond the course readings

- give a clear account of the reading that supports it

- reference your sources and present a bibliography

- formulate your ideas and present these in an organised fashion

- evaluate and present arguments

- express your own views in your own way

- prioritise material and express it succinctly within a stated word limit

- exercise intellectual self-discipline.

Learning skills benefits

Many of the points above are useful skills in their own right. You might choose to submit an essay because you want to work at developing your ability to prioritise themes, to present these succinctly and coherently, or to develop an argument. Good essays demonstrate sound critical evaluation, so you need to move beyond description and into analysis and evaluation, presenting a range of different views. You might choose to submit an essay because these are skills you are likely to need in the workplace, or because they provide you with a means of working out what you think.

Short essays

Short essays of 1,500 words give you an opportunity to address topics in a focused and concise fashion. You are expected to:

●   provide a sense of the overall map

●   identify and develop two or three key points in limited detail.

Learning skills benefits

If you have an 'ill-disciplined' mind, or lots of thoughts and ideas that need to be sorted out and brought under control, then the short essay may be for you.

Long essays

Long essays of 3,000 words give you an opportunity to explore topics more widely and in greater depth. You are expected to:

●   provide a more in-depth picture of the overall map

●   treat major themes in substantial depth.

Learning skills benefits

Long essays require a similar discipline of mind to short essays, but can be a challenge to people who focus primarily on factual information. The added length allows you - indeed, requires you - to demonstrate not just knowledge and information but your understanding of the issues communicated through the factual information. If you feel that your thinking can be disjointed, or even superficial, then working at a long essay can help address this.

Timed essays

In this programme a timed essay is the nearest you will come to a traditional 'sat' exam. It is designed to assess your immediate response to a question within a relatively short time frame, and without the assistance of notes and reading material. It is normally no longer than an hour. It is not necessary to provide Harvard references and bibliography. It is important to mention key thinkers, but without details such as dates and page numbers. Brief, memorable phrases can be appropriate, but you should not try and memorise longer quotations.

Learning skills benefits

Timed essays require you to work and think under pressure. Since they are akin to exams, they also require you to have a good store of factual information at your fingertips, so yes, you will need to spend time listing information that you need to memorise and revising this in preparation for the event. Many people dislike timed essays, just as they dislike exams. However, there can be a real benefit in learning to remember facts. Not only do we put a high value on factual information in our society, but being able to speak with confidence as a result of knowing what you're talking about is a real confidence booster both socially and professionally.

Similar guidelines are given for:

- annotated bibliographies
- critical book reviews
- portfolios
- learning logs
- exegetical exercises
- independent study
- dissertations.

5.6.3 Issues emerging from case study 5

The importance of flexibility for personalisation

In personalising assessment, personalisation through choice extends to a rolling programme of enrolment and assignment submission deadlines as well as choice of assessment format to submit. Personalising the learning experience by giving control to learners through choice develops transferable skills and autonomy.
Broader issue: empowering students to take responsibility for own learning.

The need to address institutional concerns

Personalising assessment presents a radically different approach from traditional HE conventions where power lies with the institution. Even though grounded in strong educational theory, the proposal to personalise modes of assessment by allowing a high degree of student choice led to institutional nervousness about quality assurance and benchmarking issues. The university retreated from giving approval to such an innovative change and will review the proposal through its long-established validation processes.
Broader issue: relinquishing traditionally held power, embracing innovation and risk taking.

The administrative challenges of flexibility

Flexibility in enrolment times, assessment deadlines and, as proposed, in assessment formats all personalise the learning experience in meaningful ways. However, all these facets of personalisation present administrative challenges as it is the student who makes the decisions rather than the institution. This requires a responsive rather than a closed administration.
Broader issue: administrative systems being able to respond to change.

The pedagogical challenges for staff

Assessment is a very traditional area of control, perhaps fundamental to staff perceptions of their own skill in the job. Personalising assessment requires a change in pedagogical approach to ensure that the course meets its educational rationale and criteria while devolving partial control over assessment to students. A degree of control is retained by staff in order to ensure that students utilise a variety of assessment formats, that appropriate assessments are submitted for key modules (for example, exegetical exercises for biblical modules) and that the learning outcomes of the module can be achieved.
Broader issue: staff development, need for attitudinal change, taking risks and trusting students.

The student perspective

Based on the experience that assessment largely determines module choice, almost regardless of fit with overall programme, the decision is to empower students to personalise how they are assessed. This implies giving them choice in assessment format, equipping them to exercise that choice and trusting them to make responsible decisions. The risks are, however, that students may only play to their perceived strengths and ignore the opportunities to challenge their weaknesses, because every assessment counts.
Broader issue: empowering students to take responsibility for their own learning.

The need for clear and unambiguous information

The key to success in personalising assessment is the provision of clear and unambiguous information in the 'Types of assessment' handbook. Students are introduced to learning styles and the links between learning styles and assessment formats. Information is also provided on the learning benefits of each format, thus enabling students to make the informed choice of format that most satisfactorily meets their needs from each individual module. By personalising their choice of assessment, students take responsibility and are empowered to learn from that experience.
Broader issue: empowering students to take responsible decisions.

5.7   Online learning materials to accommodate the heterogeneity in student abilities, aptitudes and aspirations at the University of Edinburgh

5.7.1   Introduction

Online learning materials to accommodate heterogeneity in student abilities, aptitudes and aspirations aims to provide students with flexible access to learning materials, which they can personalise in use to explore topics in depth or breadth, depending on their current state of knowledge. These materials blend the best of face-to-face teaching with the opportunities offered by online materials to support student learning. This initiative addresses two strands of personalisation:

● to engage and empower students

● to exploit the potential of new technologies.

Meeting the challenges of diverse student populations across the HE sector has encouraged the development of alternative and additional methods of providing students with learning materials. The use of technology to give added value to the student experience has resulted in the development of a variety of online materials. Traditional lectures have been enhanced by these materials, which can be flexibly accessed in a way that personalises access for each student. Using a blended learning environment, the intention is to accommodate the wide range of prior qualifications of new students and to sustain their engagement with the subject.

5.7.2 Case study 6

Title

Online learning materials to accommodate the heterogeneity in student abilities, aptitudes and aspirations at the University of Edinburgh.

Contact

Dr Simon Bates (s.p.bates@ed.ac.uk)

What is the concept of personalisation on which online learning materials to accommodate the heterogeneity in student abilities, aptitudes and aspirations is based?

Personalisation is allowing students freedom to choose their own route through learning materials by selecting for themselves the breadth and depth to which they explore them, thus exploiting the possibilities of the online environment to add value to the learning experience.

Target group of students:

Students entering their first year (SCQF level 7) of study at the University of Edinburgh and enrolling for Physics 1A.

Brief description of the online learning materials to accommodate the heterogeneity in student abilities, aptitudes and aspirations:

Online materials to accommodate the heterogeneity in student abilities, aptitudes and aspirations aim to offer students a multiplicity of possible routes through electronic learning materials, thus enabling them to personalise the route that is most appropriate for their needs.

In recent years, the intake into Physics 1A has become increasingly diverse. Not only have the numbers of students increased, but so has the heterogeneity of the student cohort. Students enter the course with a wide range of prior qualifications in the subject: Scottish Highers, Advanced Highers and A-levels as well as a small number of other qualifications such as International Baccalaureate, Irish Leaving Certificate and so on. Coupled with the heterogeneity in prior study is a broadening range of preparedness for university study of the subject. A final dimension of heterogeneity is that the course is taken by over 100 students each year who will not pursue a physics degree, but have selected this as an outside course. Accommodating these needs is a challenge, tackled through the development of online materials.

In contrast to the normal mode for reading a text, navigation through the online environment is inherently non linear. A coherent collection of such materials can therefore offer students a multiplicity of possible routes through the material, with the students free to choose the route that is most appropriate to their need. Four aspects of the design of the e-learning materials that facilitate this personalisation are highlighted:

- a highly granular[2] source of individual learning objects
- online constructions, called 'one-downs'
- 'pop-ups' that provide additional depth and breadth of material
- the ability to import external resources adapted to the local context.

The combination of these elements produces a body of content that is presented to students for the duration of the course (and indeed after they have completed it). The online course material now comprises over 1,400 nodes or grains of information ('knowledge objects' such as pictures, text, examples, questions, applets etc), which are aggregated in small clumps to make 'learning objects', defined as a combination of information and some activity (such as interactive multiple choice question [MCQ] self-tests, or tutorial-style questions).

The principal components of the online materials are electronic course notes, interactive self-test MCQs, tutorial questions, hints, progressively-revealed solutions and material to support studio-style group work activities. These are supplemented by various pieces of course information, administration and a discussion forum.

Design examples that facilitate personalised routes through material

The initial assumption is that a diverse student cohort will exhibit diverse utilisation strategies for online materials; in other words, one size does not fit all. The course design supports differentiated routes through the materials with three specific examples:

- the inherent granularity of the materials and the way they are aggregated and cross-linked
- the use of on-page interactive elements ('in-lines' and 'pop-ups')
- the importing of external online resources that can be adapted ('wrapped') to fit the local context.

Aggregation and cross-linking of materials

The inherent organisation of the material is itself supportive of differentiated routes through the material. The material is highly cross-linked, allowing multiple navigation possibilities from pages. These resources may be accessed in one of two ways. The first is enabled by tightly coupling them to individual pages of content. A student can work through content and then choose to test their understanding of it by practising any of the questions that directly related to that content. An alternative route to them is offered by a collected list of all questions for students to browse through, grouped according to the same topics that are used to organise the content itself.

On-page interactive elements

The course content is designed with on-page interactive elements that facilitate differentiated routes in depth and breadth, using JavaScript within the page. These constructs are referred to as 'in-lines' and 'pop-ups', and have clearly delineated functions.

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[2] That is at a fine level of detail.

- 'In-lines' are part of the core material of the course and allow the students to open up additional pieces of material in-line in the page. These constructs contain additional material such as worked examples, proofs, commentaries, help and advice. It can be thought of as the flesh on the skeleton. Some of this material, but by no means all, is discussed and worked through (often in an abbreviated form) in lectures. Students can choose to open these panels if they want access to a greater depth of material.

- 'Pop-ups' are not core, hence the decision to make them distinctly different in operation to in-lines. They open up in separate windows and contain material that is deliberately off the beaten track. They can also contain media such as applets, simulations or movies and frequently adopt a more discursive tone than the core material.

Imported resources, adapted to fit a local context

One of the guiding principles is to use suitable material that is freely available elsewhere on the web, rather than trying to reinvent all these particular wheels. A wide variety of different resources can be offered within the integrated framework of the course provided that they are granular enough to be able to be customised or embedded within the local context. These resources can be wrapped with learning or study activities, to inform and guide student use of these resources, rather than simply pointing students to external resources.

How effective have the online learning materials to accommodate the heterogeneity in student abilities, aptitudes and aspirations been?

The aim is to produce learning materials that would provide students the freedom to personalise how they use the material. It is possible to explicitly evaluate the extent to which students have done this by tracking student use of the materials (described below) and visualising the routes that are actually taken.

The materials are an extremely effective resource for learning, so much so that students sometimes need to be encouraged to read around the subject by consulting texts, for example. The materials have also enabled change in the way lecture time is used. Lectures are now a more interactive process, mediated by electronic voting systems, knowing that the body of content that defines the syllabus is present elsewhere. Thus, lecture time is used to focus on conceptual understanding, with other teaching activities making use of the online content as well.

How are the online learning materials to accommodate the heterogeneity in student abilities, aptitudes and aspirations evaluated?

For the last two years, student activity and usage of the online course materials has been tracked to gain insight into how students use the materials, at a far higher level of detail than is provided within commercial VLEs such as WebCT, through which students access the material. This allows the construction of spatial and temporal 'maps' of student sessions of use of the material.

Tracking events are not simply restricted to page loads, but also capture on-page interactive elements. From this data it is possible to calculate an average session, which lasts around 15 minutes and consists of 2.3 page hits.

The University of Edinburgh has constructed these 'maps' of student sessions, which illustrate a change in the type of content accessed through the semester. More revealing information comes from looking at the type of content accessed through time as stored in the page ID. Not only is there a general increase in the number of pages being accessed and the length of time being spent on the site, but there is also a clear increase in the access of MCQs as exam time approaches. It is clear that students change how they utilise the site, depending on the demands of the course at the time.

How do students respond to the online learning materials?

Students have used the full range of materials available on a page, including in-line elements and pop-up windows and show repeated visits to the same pages. These sessions span a large range of page hits and time, from a few pages viewed over a few minutes to nearly 100 pages in nearly five and a half hours.

Students frequently indicate that the online resources are one of the best things about the course (interestingly, the engagement of staff in the face-to-face teaching episodes fares equally well, suggesting that students really can have the best of both real and VLEs simultaneously).

Qualitative feedback is collected from students, both via focus groups and the end-of-course questionnaire. Some of the students highlight how their use of the materials changes over the duration of the course, to reflect the development of their learning through the course.

What institutional challenges has this initiative presented?

Attempts are made to correlate the amount of usage of the online resources by students with their end of course assessment. This is admittedly a very crude measure.

One might assume that a high volume of use leads to good learning and understanding and a good mark at the end of course assessment. (Though it is not clear whether this relationship - should it even exist - is one of cause or effect. Are good students well motivated and use all available resources heavily, or has using the resources made them 'good students'?)

The University of Edinburgh has produced spatial and temporal 'maps' that illustrate the variation in student attendance at lectures and use of online materials. In a sense, the maps serve to illustrate the heterogeneity in behaviour on the course, not surprising given our previous statements about heterogeneity of ability, attitude and aspiration. It is clear that there is no simple correlation between the end-of-course mark and use of online material.

This prompts many questions for course designers and teams, and in combination with other analyses and course activities (such as diagnostic testing) will shape the direction of the course in future years of delivery. In ongoing work, differences in the online pathways taken by different types of student are being examined.

The online learning content created for this course surfaces a particular and common tension: what students value most is not cheap to produce. The students perceive resources of this type among the most useful and valuable assets of the course, yet from a staff perspective they are among the most time consuming and costly to produce. To this end, much effort has been put into developing a system for authoring, management and deployment of online resources like this, without the need to be a technical expert. (The content management system, Aardvark, is described in more detail at the online location at the end of this case study).

What plans are there for further development of online learning materials to accommodate the heterogeneity in student abilities, aptitudes and aspirations?

A major effort has gone into making this type of content easy to be created by non-technical academics. Rollout of the resulting content management system has driven further developments in supporting a greater diversity of materials and course teams.

A future development of the system will look at empowering students to create and curate their own learning content online. Although the resources created allow for a certain amount of interactivity and personalisation in the route taken through them, they are essentially a static body of content, fixed at the point of deployment. It is hoped in future to offer students the opportunity to make online annotations to the material, which may be private (for their own use) or public, shared between their peers. In the latter case, it is envisaged that students would become engaged in collaborative authoring of additional material beyond the fixed body of content provided. In a simplistic way, this development aims to add wiki functionality to aspects of the online course, drawing in associated Web 2.0 tools to manage and subscribe to comments/ additions to portions of content.

Further information available from:

www.ph.ed.ac.uk/elearning
Reprints of journal articles and conference presentations, online resources and other links are also available from this site.

5.7.3 Issues emerging from case study 6

The need to respond to heterogeneous student populations

An explicit recognition of heterogeneity, in terms of abilities, aptitudes and aspirations, drives the need to personalise the learning experience for each student. One approach is to devise learning materials and make them available online. Students decide how to use these materials to their own advantage by choosing where and when to access them, what to access, how often to view and review them and whether or not to undertake self-assessment. The materials per se are not personalised, but the use of them and the routes through them provide a personalised learning experience for each student.
Broader issue: the 'one-size-fits-all' traditional model of lecture delivery is no longer appropriate to meet the needs of heterogeneous student populations.

The need to respond to twenty-first-century students

The majority of twenty-first-century students are comfortable working within electronic environments. They, arguably, have different ways of learning from previous generations and have expectations that they can utilise their technological skills within HE. One strategy to engage these students is to exploit the personalising potential of technology, for example by navigating online materials in a non-linear way. Enabling students to explore materials in this way empowers them to take responsibility for supplementing their class-based instruction in a way that is personalised to meet their needs and allows them to acquire information as best exploits their learning styles (for example, by reading text, viewing videos or taking part in interactive quizzes).
Broader issue: student expectations of personalised use of technology within HE.

The added-value of personalisation

Traditional modes of delivery in HE rely on the lecture and student attendance. As online materials enable students to prepare for lectures in advance, lecture time is used differently. Lectures are more interactive and focus on conceptual understanding rather than the transmission of information. Lectures are therefore more stimulating and engaging and add value to the student experience. The durability of online information facilitates personalised access so that students can prepare for classes or make good any knowledge gaps that become apparent.
Broader issue: need for pedagogical change.

The need to minimise requirements for technological expertise

Academic staff vary widely in their utilisation of new technologies. This may be due to a lack of knowledge or skill, or a lack of enthusiasm. From the staff perspective using new technologies is often perceived to be time consuming and costly, despite the value students place on these resources. Therefore, it is important to make technology accessible. Aardvark is a content management system that permits authoring, management and deployment of online resources without the need to be a technical expert. It also facilitates the creation of links to materials that are already available on the web, therefore resources can be imported and adapted to a local context. The role of staff is to guide students to resources via links to external sources and to teach them to critical of the materials they access.
Broader issue: staff attitudes towards the use of new technologies.

The need for investment

The development of online learning materials, with the multiplicity of routes permitting personalisation, requires up-front financial investment. Although resource intensive to set up, they are resource efficient to use. Students expect a high-quality/high-tech learning environment that allows interactivity and personalisation of the resources. Further, there is the potential to use students themselves as a resource to create and curate their own learning content.
Broader issue: funding development and the use of project-funding, which in turn raises issues of sustainability embedding and mainstreaming.

The difficulty of evaluating impact

Despite the sophistication of tracking student use, it is impossible to attribute cause and effect in assessing the impact on online materials on performance.
Broader issue: gathering evidence of the impact of personalisation initiatives.

5.8   Emergent themes

Despite the differences in aims and approaches exemplified in the case studies, a number of cross-cutting themes can be identified. These illustrate a shared understanding of the issues that face students in their first year in HE and the consequent challenges for institutions and their staff:

- lack of a clear understanding of the concept of personalisation

- the extent to which students value personalisation of their first year experience

- motivating effects of personalising the student experience and the consequent benefits in terms of engagement and enjoyment of study

- personal responsibility students have to acknowledge that participation in HE is a two-way process

- need for up-front information, advice and guidance on the use of resources so that students can personalise their use of them when and where they are needed

- importance of devolving power to students and equipping them to exercise that power by giving them choice and the personal responsibility to make appropriate decisions

- value of identifying key times in the first year student life cycle when a personalised intervention may be most effective

- need to use technology as a teaching and learning tool, not just as a medium for communication and information transmission/retrieval

- potential of new technologies to personalise and enhance the student experience

- recognition that online does not equate with saving time from the staff perspective

- need for staff development

- importance of staff attitudes towards coping with empowered students

- importance of having staff who are reflective practitioners and who become involved in action research with reference to their own teaching

- need to acknowledge that twenty-first-century students are different with regard to their expectations and their ways of learning from so-called 'traditional' HE entrants
- importance of using students as a resource
- need for investment of money, time and effort in personalising the first year student experience
- potential value of overturning the current student deficit model and the systems of support, which are reactive, by up-front investment of money, time and effort to equip and empower students for future successful study, thus making them less, rather than more, needy as they progress
- difficulty of evaluating the impact of personalisation initiatives and the need to take account of the qualitative changes in the student experience as well as the quantitative data of student progression and performance.

These themes together inform the key recommendations for senior managers and policy makers; academics and practitioners; and students, student officers and student associations presented in section 6.

6 Key recommendations

6.1 Introduction

The cross-cutting themes that emerged from the case study materials, identified in section 5.8, form the basis on which a number of key recommendations are made for senior managers and policy makers; academics and practitioners; and students, student officers and student associations.

6.2 Key recommendations for senior managers and policy makers

Although the term personalisation does not have a shared understanding across the sector, there are many ongoing activities that are implicitly based on this concept. Personalisation of the student experience is particularly important during the first year in HE and can be promoted in a number of ways designed to counter the effects of widening participation and the massification of HE.

- HEIs should develop and implement policies on, for example, attendance monitoring, PDP, buddy systems and personal tutoring, in order to help students personalise their first year experience.

HEIs have embraced the widening participation agenda and, to a considerable extent, have responded by putting reactive support structures in place. These are largely based on traditional models of delivery, predicated on the student deficit model and, arguably, make students more dependent as their studies progress. There is a need for fundamental change. New technologies offer opportunities for radical change in how students learn and how they are supported. Up-front investment in technology that equips first year students to become more autonomous and independent learners pays dividends later as students become less dependent on staff interventions and more able to use each other as a resource.

- HEIs should develop structures for the provision of information, advice and guidance to all first year students in order to equip them with knowledge of support resources available. Thus, students can personalise their access to resources where and when required and are therefore likely to become less needy as their studies progress.

HEIs have acknowledged that many first year students in the twenty-first century are unlike 'traditional' entrants to HE. They may have different expectations, different ways of learning and different lifestyle pressures arising outside their academic lives. In addition, they are likely to be very familiar with the latest technological developments, to have high expectations of how technology will be used in HE, and to have experience of personalised electronic environments.

- HEIs should develop and implement policies on the use of social software and personalised learning environments. Students should be invited to participate in these processes.

Notwithstanding the above point, HEIs must not assume that all students are computer literate and comfortable with twenty-first-century electronic technologies.

- HEIs should put formal, personalised provision in place for all first year students to equip them with the knowledge and skills required to deal with the IT demands of their programmes of study.

The roles of academic and support staff, who are reflective practitioners and engage in action research based on their own practice, are crucial and contribute to the development and implementation of strategies to personalise the first year student experience.

- HEIs should invest in staff development and ensure that all staff involved in researching pedagogical change have appropriate reward structures and career progression pathways.

In order for HEIs to introduce and sustain innovation, resources are required. There is a history across the sector of an over-reliance on project funding to stimulate change. Two issues emerge: first, the danger of initiative fatigue as each new source of funding is embraced, almost regardless of institutional fit; and second, the danger that longer-term strategies to embed and mainstream activities are overlooked.

- HEIs should devise policies and implement strategies for the long-term enhancement of the first year student experience.

It is, of course, important to evaluate the impact of change. However, there is a tendency towards immediacy and an over-reliance on quantitative data, measured by the retention of students. It takes time for impact to become evident and it is necessary to take account of, and to value, qualitative as well as quantitative evidence. Personalisation of the first year student experience adds value in terms of student engagement, motivation, building confidence and enjoyment, hence the long-term benefits of personalisation are seen not only in terms of student retention, but more importantly in terms of student satisfaction. This is particularly important as students can be very effective ambassadors for their institutions.

- In evaluating the impact of initiatives to personalise the first year student experience, HEIs should take account of qualitative as well as quantitative data.

An effective strategy to personalise the first year student experience is to devolve power to students and allow them to exercise choice. Thus, administrative systems are required to be flexible and students should not be hindered by administrative constraints.

- HEIs should develop flexible administrative systems to accommodate personalisation of the first year student experience by exercising choice.

6.3 Key recommendations for academics and practitioners

Evidence from the case studies reported in section 5 indicates that students value personalisation of their first year experience, even though they are not familiar with this term. They like to be known. They like personalised feedback. They like individual attention.

HEIs and their staff acknowledge the diversity within current student cohorts and the fact that not all first year entrants are equally well prepared for HE.

- Staff should give proactive support to first year students at an early stage and acknowledge that, regardless of their backgrounds, they need time to adjust to the university learning environment. Steps should be taken to treat students as individuals and to personalise their experience in small but significant ways, for example by getting to know their names, taking attendance in large classes or encouraging small group discussions. The importance of socialisation within this adjustment process should not be underestimated.

Students need time to learn how to learn, particularly if they are first generation entrants into HE and have little social and cultural capital resource.

- Staff should make space in the curriculum to teach students how to learn, for example to address issues of meta-learning, even though this is perceived to take time away from discipline-based tuition. The beneficial consequences are seen in the empowerment of students, the creation of autonomous and independent learners and the facilitation of learning communities and systems of peer support.

Staff have to take steps to equip their students to make personalised decisions, then devolve responsibility for decision-making to their students and trust them to act responsibly. Thus, staff must be willing to relinquish their power over some aspects of the curriculum and to deal with empowered students.

- Staff should take steps to empower their students by creating a student-centred curriculum through which students can take control of, and responsibility for, their own learning.

Personalising routes through electronic course materials and other resources empowers students to take responsibility for their own learning, challenges them to expand their skills and knowledge and encourages them to become independent learners.

- The use of technology for learning and teaching should be more innovative and not just concerned with content delivery. In addition to transmitting information, the use of technology should enable students to self diagnose, review and assess their learning in personalised ways, which, in turn, should allow class time to be used differently.

Diversity is an underutilised strength within current student cohorts. Acknowledging and valuing individuals' strengths and prior experiences contributes greatly to the personalisation of the student experience and the establishment of a sense of belonging and adds to the resources available within the classroom.

- Staff should be reflective practitioners and involved in action-research based on their own pedagogical practice. Thus, they can learn from their students and, for example, identify critical times when a personalised intervention may be most effective.

6.4 Key recommendations for students, student officers and student associations

Listening to the student voice has not been a strand of this project. However, student feedback has been included as an integral part of the case studies presented in Section 5. The evidence is that students value personalisation of their learning experience and that the benefits manifest in engagement with their studies, motivation and self-confidence. Empowering student to be autonomous and independent learners also has beneficial consequences in terms of giving them control over important aspects of their own learning.

The following recommendations for students, student officers and student associations largely derive from the case study materials.

- Students must acknowledge that participation in HE is a two-way process within which they carry responsibilities to personalise their own learning experience.
- Students should engage not only with the academic curriculum but also with the broader aspects of their first year student experience.
- Students should be proactive in giving feedback and participating in opportunities to become involved in staff-student liaison committees, student associations and student participation in quality scotland (sparqs).
- Students should take responsibility to be a resource, sharing experience within the classroom and sharing materials and sources of support.
- Students should participate in buddying schemes to help personalise the first year experience for other students.

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8 Appendices

8.1 Appendix 1: Literature review

8.1.1 Introduction

The comprehensive literature review on the first year experience conducted by Harvey and Drew (2006) makes no explicit mention of personalisation but, rather, draws attention to the dearth of literature on this topic:

> The research suggests that two things are special about the first-year experience. First, is the process of transition and adjustment and its concomitant high incidence of withdrawal, about which there is much research and advice. Second, is the mass experience of being a first-year as opposed to the differentiated experience of later years: as not being seen as individuals, as being taught or instructed rather than as having one's learning facilitated, as often taught by untrained or inexperienced teachers or teaching assistants, as being perceived as a (potential) problem. There is much less research on this second aspect and what there is tends to explore how students can be given extra support or subjected to pedagogical experiments. (Harvey and Drew, 2006, page 120).

It would appear that the sector has lost sight of the individual:

> The student as human being seems not to be an important concept in far too many institutions of higher education, but rather seems more appreciated as a statistic: a degree aspirant, a major, a minor, a female, a datum to report for state financial support, a possessor of a good I.Q., a genius, and a potential member of a discipline, among other things. (Kowalski, 1977, page 84).

Hence, this project has sought to gain an understanding of the concept of personalisation as it is in use across the UK HE sector. This brief literature review does not present a general survey of the whole HE scene from theories of education and learning to detailed explanations and illustrations of practice. Rather, it acknowledges the wide-ranging nature of personalisation and focuses on literature pertinent to the main themes which emerged from the empirical research undertaken. Thus, the literature selected is indicative rather than comprehensive.

8.1.2 The first year

It is widely acknowledged internationally that whatever a student's background, the first year of HE is crucial to academic success (Harvey and Drew, 2006; Barefoot et al, 2005; Krause et al 2005). During first year, important decisions are made, attitudes shaped, and personal connections established that have a lasting effect:

> The formative experiences of students are pivotal in establishing attitudes, outlooks and approaches to learning that will endure beyond the undergraduate

years. (McInnis and James, 1995, page ix).

The ability of an institution to both challenge and support students during the crucial first year will greatly influence their performance and progression, their participation in academic and social life, their retention and their subsequent employability. Student retention is an increasingly important issue due to concerns about the ever escalating costs of HE, in both financial and personal terms, and increasing withdrawal rates across the sector. The reasons for withdrawal have been widely investigated (for example Yorke 1997, 1999, 2000) and many explanatory models have been postulated (for example Tinto 1975, 1993). This work has been extensively reviewed by Harvey and Drew (2006).

Tinto's model of student withdrawal focuses on the concept of academic and social integration and places the onus on students to fit into the institution, rather than regarding the institution as also having responsibility to accommodate its students. Students typically encounter a variety of challenges in making the transition into HE. These may be personal, for example juggling the demands of work, family and study; they may be institutional, for example dealing with the bureaucracy of the institution; they may be academic, for example learning how to learn in large lecture classes or making sense of the ways different disciplines define and pursue their ways of knowing (University of Washington, 2001). In the past, students have largely been expected to navigate most of these difficulties on their own. However, recent attention has begun to focus on the responsibilities institutions have to ensure that they empower their students by equipping them with the skills and knowledge they need to succeed.

Tinto's model has been criticised (Bean and Eaton, 2000; Yorke and Longden, 2006) for failing to take account of the sociological, psychological and economic influences on student persistence and performance and for being inappropriate to embrace the demographic realities of twenty-first-century students. Undoubtedly, a thorough understanding of the demographics of contemporary HE is essential to an understanding of retention.

Recent approaches to the study of retention acknowledge the increase in numbers of students in HE, the diversity of student populations and the changed economic pressures on students by addressing issues of academic, social and financial capital and relating them to the concepts of engagement and empowerment (Abramson and Jones, 2003). Many entrants to HE no longer have the academic capital of traditional A level, 'gold standard', entry qualifications; many are first generation in their family to access HE hence do not have social capital to call upon; and many lack financial capital hence must balance study with paid employment (Field, 2000, 2003). These factors combine to greatly influence students' early experiences of and integration into HE.

The HEIs of the twenty-first century are very different places from those of 50 years ago, see for example Barnett (2004). Similarly, twenty-first-century students are different from those entering universities 50 years ago. Twenty-first-century students have different expectations and perceptions of HE, what they want from it and what they expect it to deliver. There is a wealth of literature about the so-called 'generation Y', that is young people born during the late 1970s and early 1980s, entering HEIs (Pletka, 2007) and the workplace (Martin and Tulgan, 2001). For a fuller discussion see section 8.1.6.

Students entering HEIs now are part of very large, diverse student cohorts. They have many, competing, obligations on their time, including having to meet financial, family and employment responsibilities. Hence they may have a different approach to their studies and different expectations of what HE can deliver. They have also grown up in a world of modern technology, which was not part of the educational experience of the majority of their parents or tutors. Thus, the initial experiences of current first year students are likely to take place in the context of large class sizes.

8.1.3 Large class sizes

Massification characterises the twenty-first century HE sector both within the UK and internationally. The concept of massification stems from the work of Trow (1973, 2000) who adopted a purely quantitative approach to defining elite, mass and universal systems of HE. Whether or not such a typology is useful in UK terms is debatable (Scott 1995, 2005), however what is unquestionably evident is that there has been substantial expansion in the numbers of students in UK HE over recent years and the numbers continue to rise (HESA, 2006). This expansion has led to increasingly diverse student populations across the UK (Thomas, 2002) and elsewhere, for example in Australia (McInnis, 2003) and the US (Reason, 2003). Such expansion has significant implications:

> Mass higher education means a different sort of higher education system, with different parameters and expectations for students, academics and the community. It requires rethinking the design of learning experiences and courses, teacher-student contact, and the role of the academic. It necessitates re-examining the way courses are delivered, the implications of institutional policies and practices and recognising that systems of support for learning are as important as the delivery of subjects and courses. (DEST, 2002, page 5).

Massification is seen as one of the drivers of the need for personalisation and its impact is claimed to be sharper during the first year compared with later years of study (Harvey and Drew, 2006).

The concept of 'personalisation' in the educational context is relatively new in UK terminology, whereas 'personalization' has been in common usage across US education since the 1970s.

Personalisation within US schools has been used with some success in aiding social education, for example teaching young people about bullying (Lake, 2004; Beale and Scott, 2001) and about the need for cooperation and cohesion in forming a choir (Zielinski, 2005); and to promote cultural understanding and overcome cultural stereotypes (Pyterek, 2006). Personalisation is also demonstrated to be effective within various disciplines, for example in teaching history (Durham and Lincoln, 2002). Similarly, research in UK has shown personalisation to be effective in teaching children basic literacies (Greenhough et al, 2005) and in helping children with special learning needs (Daniels, 2006). Indeed, in the US, Poland (2000) went so far as to propose that personalisation should be considered as 'the fourth R - Relationships', arguing that schools must make a conscious effort to improve the quality of personal interactions between staff and pupils; and recommending that staff personalise their communication styles, encourage more pupil participation in extracurricular activities, and rethink school size.

Personalisation has also been applied to many aspects of the HE experience. For example, prior to making application, the advice given by Mitchell (2001) for getting into college, given the competitive market in the US, is to 'personalize, personalize, personalize' with regard to choice of college. Being interviewed is also seen as helping to personalise the admissions process (Mullin, 2003).

Within the context of undergraduate study there is a wealth of literature emanating from the US college sector where personalisation has been applied to the teaching of, for example, biology (Druger, 2001), psychology (Yanowitz, 2001), organisational behaviour (Miner, 1992) and dermatology (Morton et al, 2007).

Among the strategies adopted by Druger were creating a motivational learning environment by making content meaningful, creating student-oriented course features and staff making themselves available and demonstrating that they care about students. In psychology, Yanowitz asked students to generate a lifeline at the beginning and end of their developmental psychology. Student evaluations indicated that constructing the end-of-course lifeline encouraged them to personalise the classroom material. Morton et al introduced electronic books (TK3 eBooks), which enabled students to personalize information through using the electronic equivalents of highlighter pens, post-it™ notes and indexing. Evaluations showed that students perceived eBooks as an effective way to distribute course content and as a study tool, but they preferred paper over eBooks to take notes during lectures. There is further discussion of the use of new technologies as an aid to personalisation in section 8.1.6.

Approaches to teaching and staff-student interactions are also subject to research, particularly with regard to how to mediate the detrimental effect of large class sizes on student learning. While large class sizes are largely the norm in twenty-first-century HE, some small steps can be taken to break down their de-personalising influence. Darlaston-Jones et al (2003) have shown that on entry students expect lecturers to get to know them personally, but they quickly (by week 14) realise that this will not be the case. Getting to know students by name is difficult in a large class; however, Brophy (2002) argues that it can be done and is worth the effort. Keeping attendance records, for example, is a small step that conveys the message that someone is interested in whether or not a student is present at classes. Breaking large lecture classes into small tutorial groups can also be effective in personalising the experience, as can be assigning students to a personal tutor with whom regular meetings are scheduled.

Not everyone agrees that large class sizes necessarily disadvantage students. For example, Jenkins (1991) reviews research into the impact of class size and concludes that large classes are not necessarily detrimental to the student experience. He argues that staff attitudes are more important than size per se in determining the consequences of being taught in a large class.

Yair (2007) conducted an extensive investigation into the influences on students' learning by asking students to recall three critical moments from their educational experiences. His findings highlighted how important individual members of staff could be and how a small personalised intervention could make a huge impact on an individual student, 'I felt he was aware of my abilities and that he knows me' (Yair, 2007, page 20).

Yair (2006, 2007) also discusses the importance of such 'personalized' contact for students enjoying 'second chance opportunities' (Yair, 2007, page 20), that is adult returners, students who had previously failed or had poor experiences in HE and students with disabilities. For these students, their perceptions of how they construct their identities and discover themselves owes much to 'The personalised encouragement offered by significant professors and academic advisors' (Yair, 2007, page 26).

Benjamin (1991), for example, discusses various methods of personalising large introductory psychology classes. She contrasts the traditional passive, 'lecturing by professors' approach with the active learning situations made possible when students are divided into smaller groups, even within the large class setting. Sprecher and Pocs (1987) advocate the use of upper-level students as discussion leaders of small groups in order to personalise the standard lecture format used in large group sociology classes. DeLamater et al (1994) argue that helping students to see the personal relevance of course material is an important instructional goal. They describe four strategies that can be used to personalise the information presented in large lectures: using self-report questionnaires; using simulations and demonstrations; analysing lecture themes as addressed in popular culture; and requiring journals and alternative writing assignments.

Innovative approaches to assessment have also been shown to enhance and personalise the learning experience. Slater et al (1997) compared the use of student-created portfolios in an algebra-based, college-level, introductory physics course with the use of traditional, objective interim tests. They found no significant differences in learner achievement between the two groups on the final examination but did find that the students assessed by portfolio feel less anxious about learning physics, devoted more time to reading and studying outside of class, internalised and personalised the content material, and enjoyed the learning experience.

8.1.4   Learning styles

Learning is, of course a 'profoundly personal affair' (Clark, 2006, page 7). Hence, it could be argued that there is nothing new in the concept of personalisation of learning and one approach to understanding it is through an exploration of its relationship with learning styles. It has long been recognised that students have different abilities, interests, experiences and learning preferences and it has been argued that understanding and working with learning styles is key to helping them learn more effectively. A detailed review of the learning styles literature is beyond the scope of this project, however, some useful summaries of the contexts within which theories have emerged have been published (see for example Cassidy, 2004).

The study of learning styles and concomitant teaching practices has been at the forefront of academic debate for some time. There has been a recent paradigm shift from 'teaching' to 'learning' (Barr and Tagg, 1995), which places learning and the individual learner at the centre of the educational experience and paying attention to individual differences, with respect to preferred learning styles, is seen by some as the solution to coping with diversity within student populations. Schank (1997) dismisses this approach, arguing:

> Contrary to common belief, people don't have different learning styles. They do, however, have different personalities…everyone learns in the same way…through failure and practice. (Schank, 1997, page 48)

Hall and Moseley (2005) present an overview of the theoretical bases of a number of models of learning styles and examine the empirical evidence of their impact on achievement and motivation. They conclude with the argument that labelling students' learning styles risks placing limits on their ambitions and on others' expectations of them. Hall and Moseley suggest that knowing one's preferred learning style is only really useful if this knowledge leads to effective strategies, which can be put to use in learning.

Coffield et al (2004a, 2004b) also challenge the legitimacy of theories based on learning styles, arguing that they have little impact on teaching and learning per se. A view that is refuted by Rayner (2007), who calls for more evidence-based research into the relationship between learning styles and pedagogy, assessment and curriculum content.

Sternberg and Zhang (2001) differentiate between learning styles (which characterise how individuals prefer to learn); thinking styles (which characterise how individuals prefer to think about material while learning it or after it is already known); and cognitive styles (which characterise ways of knowing, perceiving, and recognising what has been learned). Each is qualitatively different from the other and distinct from abilities (which are the natural or acquired skills enabling individuals to do things). Abilities are important for learning but they are not the only contributing factor in the development of learning styles.

Three learning styles that are fairly widely accepted as standards are sensory-based, personality-based and aptitude-based. Recently, Dieterle et al (2007) proposed a fourth learning style: media-based learning characterised by the use of new technologies. It has been argued that 'Today's students are no longer the people our educational system was designed to teach' (Prensky, 2001 page 1).

Various terms have been used to describe twenty-first-century students, including 'Net Geners' (Oblinger and Oblinger, 2005), 'neomillennials' (Dede, 2004) and 'Y2K' (see case study 4, section 5.5). These students are the first to grow up with digital and cyber technologies. By the time they reach 21, Bonamici et al (2005) have estimated that on average each will have:

- spent 10,000 hours playing video games
- sent 200,000 emails
- spent 20,000 hours watching TV
- talked for 10,000 hours on mobile phones
- read for less than 5,000 hours.

Having been raised in an age of media saturation and convenient access to digital technologies, it is argued that the neomillennials have distinctive ways of thinking, communicating, and learning (Oblinger and Oblinger, 2005).

Bradley (2007) argues that a whole new kind of undergraduate experience, founded on research and self-exploration, is needed:

> In the innovation age, learning to learn, learning to transform information into new knowledge and learning to transfer new knowledge into applications is more important than memorising facts or specific information (Salmi, 2001). Primacy should be given to analysis, the ability to reason and problem-solving skills.

Learning to work in multidisciplinary teams, thinking holistically, networking and the ability to cope with change are among the skills valued in a knowledge society. The learning process should be based on the capacity to find, access and apply knowledge to solve problems. (Bradley, 2007, page 301).

Thus, today's students become skilled at skimming through information quickly to find the information they require from among the vast amount of information available. This, according to Aro and Olkinuora (2007), requires a new kind of learning.

8.1.5   Engagement and empowerment

The term engagement refers broadly to students' attitudes toward and commitment to study (QAA, 2006b), that is 'The extent of students' involvement and active participation in learning activities' (Cole and Chan, 1994, page 259).

The importance of engagement lies in the fact that it has been linked to performance, persistence and progression within HE (Kuh, 2006).

Purnell (2006) identifies that the signs of engagement are evident when students share the values and approaches to learning of their lecturers; spend sufficient time and energy on educationally meaningful tasks; learn with others inside and outside of the classroom; actively explore ideas confidently with other people; and learn to value perspectives other than their own. She further argues that the first year is the ideal time to set in place structures that lead to student engagement with learning, with their discipline, and with the university as a whole.

It can be argued that students who are engaged emotionally, cognitively and behaviourally in their education will have increased affiliation with their institution and, in turn, higher levels of motivation, better attendance and greater persistence. Nevertheless, although engagement is essentially cognitive, it is strongly influenced by the context in which it takes place.

Braxton et al (2000) have proposed that the active engagement of the learner in classroom activities has a positive impact on student academic integration and therefore on retention. Further, Milem and Berger (1997) indicated that if students perceive their learning activities to be rewarding, they will 'invest the psychological energy needed to establish memberships in the social communities of their college or university' (Eales-Reynolds, 2006, page 5). The importance of social networks is emphasised in the work of Thomas (2000).

From the students' perspective, making friends is vitally important and seen as key to early adjustment to university life and a crucial step in overcoming the anonymity of large class sizes:

> I have made new friends and believe this is what has made adapting to university so easy, having a friend to talk to and go to classes with every day makes me feel at home, as opposed to week one when I knew no one and felt lost. (Knox, 2007, PowerPoint presentation).

Establishing friendship groups and engendering a sense of belonging to the institution are important dimensions of early adjustment (Harvey and Drew, 2006; Thomas, 2002;

Kantanis, 2000; Yorke and Longden, 2006) and HEIs are increasingly developing approaches to explicitly address these issues of social adjustment, often through a mix of social and academic activities. As noted in section 4.3, the importance of 'recognising the individual' and 'creating a sense of belonging' were strongly voiced by respondents in this study, and it was indicated that this could be facilitated through a number of different actions. For example, personalisation can be facilitated by establishing peer support networks, buddy systems, keeping attendance records, breaking large classes down into smaller tutorial groups, introducing personal tutors and other such strategies that emphasise the importance of the individual student as a person. Although this is an important facet of personalisation, much of the literature on these topics does not refer to the 'personalising' potential of such activities.

Many institutions are turning their attention to strategies that foster integration into the habitus of HE (Bourdieu and Passeron, 1990), particularly among those with little or no HE social or cultural capital at home, that is those who are first-generation entrants. Student expectations are shaped by the holding of social, economic or family capital (Bourdieu, 1997) and by differentials in individual, family and institutional habitus (Reay, 1998a, 1998b). The knowledge and experience that students gain from their peers, families and teachers has a direct impact on their understanding of the environment in which they learn and their pre-entry expectations, together with social, cultural and economic backgrounds, affect how students adapt to learning in HE.

Social capital within the HE context is defined by Curtis (2006) as the sum of resources accessible through an individual's networks. He argues that networks between students can yield academic benefits as well as having intrinsic value: they can counter loneliness, help students settle into the new HE environment, and make them feel they belong to the institution. However, Curtis further distinguishes between bonding capital, which is interaction with people similar to oneself and bridging capital, whereby the interaction is with people different from oneself. There is evidence that 'stay or go' decisions are often made within the first few weeks of entry into HE, the students who leave at this time are termed 'early walkers' (Bennett et al, 2007), many of whom find the university environment alienating, impersonal and unsupportive (Cavanagh, 2006). Thus, in order to engage students with their studies, from the outset it is important to encourage them to build their own support networks which are 'as important if not more important than all the formal structures any university can offer' (Cavanagh, 2006, PowerPoint presentation).

Dawson (2007) argues that the main barriers to engagement arise from large class sizes, non-attendance and a focus on teacher-centred delivery. The de-personalisation of HE (Thomas and Hixenbaugh, 2006), which arguably has arisen as a consequence of larger class sizes and a reduced level of support, also impacts on the ease with which students may initially engage with their studies and with how comfortable they feel in the new environment. The diversity of student cohorts with their different needs, goals and expectations may make engagement more challenging for those whose home or school backgrounds have offered little exposure to the wider context of this experience. In particular, students from working class backgrounds can be left feeling alienated by the predominately middle-class culture of HE, excluded from their university peers or marginalised from their home communities once they have adopted the norms and characteristics of the university environment (Baxter and Britton, 2001).

Duncan et al (2004) investigated what motivates learners to initially engage in the educational experience, what sustains that engagement and the importance of the prevailing culture in the learning environment. They emphasised the importance of relationships, including family relationships, relationships with the community, staff-student relationships and peer learning relationships.

Hawkins and Cook (2005) explored the differences and similarities between students and staff across a range of disciplines in order to develop strategies for improving academic engagement. They categorised a number of factors from previous research affecting academic engagement. Sociological factors impinged on students from traditionally under-represented groups, who arrive at university with expectations of what it means to study in HE that may not be met. Pedagogical factors place the emphasis on acquiring and reproducing knowledge, which under exam conditions is likely to disadvantage those students whose learning has been continuous assessment through coursework, projects and other methods of formative assessment (Bentley et al, 2003).

Charlton et al (2004) argue that the most commonly cited constraints to effective engagement are the method or quality of teaching and a lack of student confidence. Bloy and Pillai (2006) explored the effects of confidence on engagement and concluded that students need to be given the tools to help them engage, which include being able to acknowledge the need for and to seek out help, acquiring competent study skills and understanding their preferred learning style. Their evidence also indicates the positive benefits of engagement including increased motivation, improved grades and marks, increased awareness and willingness to seek help.

The term empowerment refers broadly to students' competency to engage effectively with their studies (QAA, 2006b). This is generally interpreted as ensuring that students have the appropriate skills to benefit from the pedagogy of HE and, ultimately, become independent learners who take an active role in and responsibility for their own learning.

Empowerment, in turn, raises the issue of support for students. Often support is seen as the provision of those essential skills that are lacking in students on entry into HE. Thus, a student deficit model prevails across much of the HE sector, along with the perception among many staff that diversity makes students difficult to teach. The consequent failure to acknowledge the strengths a diverse student population can bring to the classroom situation impinges on the approaches to teaching and learning adopted (Biggs, 1994). 'Few approaches really address student strengths and attempt to further enhance those or empower the student' (Harvey and Drew, 2006, page 82).

Many studies of support are much more about the process of doing things to students rather than working with students. Yet often, the support requirement is one of facilitating a learning environment, dialogue and peer engagement, rather than the bestowing of specific skills. Hughes (1998) takes the view that empowerment and student autonomy correlate strongly with self-confidence and that this needs to be enhanced through the acquisition of enabling skills. Thus, 'the key to success is to work with students, building on their strengths, rather than do things to students on the basis of a deficit model that emphasises inadequacies' (Harvey and Drew, 2006, page 138).

While students cannot be given power and/or be empowered compulsorily, the opportunities, resources and support that they need to become involved with their studies can be provided (Page and Czuba, 1999) and it may be that in future students will examine the culture of universities prior to entry and be influenced by the location of power within them (Gentle, 2001).

One area where there may be indications of the location of power is that of assessment. Traditionally, power over assessment has rested with the academic staff and within the constraints of the curriculum. Traditional approaches to assessment have been preoccupied with the technique and efficiency of assessment by tutors, rather than on formative, peer- or self-assessment. Meldrum (2002) has demonstrated that innovative assessment methods can lead students to feel empowered. Such methods include compiling portfolios and drawing together case studies materials from real-world situations. These methods help personalise the assessment experience and may be particularly effective when self- and peer-assessment is also built in.

An alternative theoretical basis for personalisation in learning is derived from motivational theory. It is well established that when motivated intrinsically, individuals feel more in control (Ryan and Deci, 2000), which within the context of learning leads to more ready engagement in the processes of learning. The maintenance of intrinsic motivation depends on situations that foster autonomy, allow active participation in learning and provide opportunities to exercise choice. However, personalised, student-centred models run contrary to most common practice in HEIs, where fixed timetables, delivery by lectures and summative assessment by examination are the norm. A significant rethink is necessary to shift the focus towards being responsive to individual learners and creating situations that to them are intrinsically motivating. Personalisation of the learning experience presents a major challenge, but also offers a way forward. Electronic solutions using new technologies may offer another vehicle for change.

8.1.6   Personalisation in an electronic environment

Much attention has recently focused on the contribution new technologies can make to personalisation of the student experience. However, personalisation within an electronic environment is multi-faceted. Fraser (2006) argues that distinctions can be made between adaptive personalisation (also termed implicit or inferential personalisation), customisation (also termed explicit or referential personalisation) and dynamic personalisation, see table 7.

Fraser contends that many of the electronic approaches to personalisation within education only focus on adaptive personalisation, for example using electronic systems for tracking and identity management; or customisation, for example, allowing students to choose between pre-determined elements of educational provision. Fraser argues that such approaches are insufficient to take account of and support the learning and teaching experiences of individual students and their individual differences, needs and preferences. Only in situations where dynamic personalisation occurs can students exercise real choice and take ownership of their learning. Thus for personalisation within an electronic environment to be fully effective, students must have opportunities to become active agents in their own learning processes.

Within the context of electronic environments, personalisation means 'putting the learner at the heart of the educational system' (Liber, 2006), which implies that the learner drives use of the electronic learning environment.

Adaptive personalisation	The availability of options is based on knowledge gained from tracking user activity and/or other sources of user information. The system identifies items of potential interest to the user and controls what is available to the user. Note: this form of personalisation may involve varying degrees of user awareness of, and involvement in, the process.	Institutional provision and procedure.
Customisation	The selection of options is under the direct control of the user who explicitly chooses to include or exclude options.	Enabling the learner to engage with institutional provision.
Dynamic personalisation	Production, reception and relationships are supported by the system but determined by the user - the ability to create original or derivative works, to collaborate, form networks and connections via the user's choice of applications, locations, and platforms.	The institution engaging with the learner.

Table 7: facets of personalisation within electronic environments

Liber argues that as a response to changing student populations, technological advances outside academia and the need to engage and empower students by personalising their learning experiences, the personal learning environment (PLE) must take over from the VLE within HE settings. Liber outlines the technological advances over the past 20 years which have seen the use of technology for academic purposes change:

- from authoring learning materials for CD ROM (eg Hypercard, Toolbook) and conferencing systems (eg Compuserve, Caucus, AOL) in the mid 1980s
- to online content (eg WWW, HTML 1.0), conferencing (eg newsgroups, News Network Transfer Protocol [NTTP]), chat (eg Internet Relay Chat [IRC]) and VLEs in the mid 1990s
- to social software (eg blogs, wikis, Really Simple Syndication [RSS], Friend of a Friend [FOAF], maps, mashups) and PLEs).

New vocabularies and new industries have grown up around the use of new technologies within education, for example, the term 'poducate' meaning to use podcasts to deliver lectures, news and information to students (http://poducateme.com). A pilot project at Duke University reported greater student engagement and interest in class discussions, field research and independent projects when the use of iPods was incorporated into delivery modes (http://cit.duke.edu/pdf/ipod_initiative_04_05.pdf). University of Washington staff noted that students were less likely to drop podcasted courses and students responded positively to the integration of this technology into their courses (http://catalyst.washington.edu/research_development/papers/2006/podcasting_year1.pdf).

Whereas a VLE is 'an institutional system, a mass teaching environment, an intelligent tutor, a player for customised content' (Liber, 2006); on the other hand a PLE is 'an individually assembled collection of tools for learning, a location for the aggregation of personally selected materials and a way of managing relationships' (Liber, 2006). These differences are summarised in table 8.

Liber argues that whereas a VLE retains control within the institution, the PLE gives control to the learner. Institutional VLEs may be accessed within a PLE, however it is important that some aspects of the PLE remain invisible to the institution. This allows learners to select their own pathways, decide their personal selection of tools and use their PLE to reflect personal needs and to build on their prior experience of using electronic environments for learning, work and pleasure.

Thus, broadly speaking, VLEs largely facilitate course management and retain the locus of control within the institutions, whereas PLEs enable self management and devolve control to the individual learner.

A vast number of projects are carried out under the auspices of the Joint Information Systems Committee (JISC), which promotes the development and effective use of new technologies to support teaching and learning for higher and further education (see www.jisc.ac.uk/). The JISC website holds a wealth of information on personalisation of the learning experience, including a literature review of personalisation within this context (Harris, 2002).

Activity	Virtual learning environment	Personal learning environment
Negotiating learning	Teacher and student commitment, requirements	Commitments to different activities
Coordinating students	Timetable, resources, materials, lectures, reading lists, activities, pedagogy	Managing time, scheduling, resources, materials, colleagues, reading, activities, making overall sense
Monitoring	Is learning happening? Is pedagogy working?	Am I making progress on each course as I expected? Reflection
Self-organised collaboration	Coffee bars, IM, blogs, resource sharing	Finding synergy between courses activities
Development	New resources? Strategies? Pedagogies?	New courses? New materials? New colleagues? Where next? PDP
Locus of control	Lies within the institution	Rests with the learner

Table 8: virtual learning environments and personal learning environments,
(from Liber, 2006)

Examples of recent JISC projects that focus on personalisation include:

- **eLISA (e-Learning Independent Study Skills Award)** This project brought together study skills learning resources, repositories, e-learning systems and support tools to examine the pedagogical effectiveness of using e-learning for study skills. Students prototyped and evaluated a PLE in which they could trial study skills sequences in LAMS[3] and Moodle[4]. The overall project highlighted the pedagogic benefits for learners and teachers from using e-learning for study skills.

- **L4All (lifelong learning in London for all)** This project provided an environment for the lifelong learner to access quality-assured learning materials, personal development plans, recommendations of learning pathways, personalised support for planning of learning, and reflection on learning.

- **CeLLS (Collaborative e-Learning in the Life Sciences)** This project described the potential for e-learning methods and technology to enable a shift to more student-centred learning methods. Such methods provide a fundamental re-engineering of the educational process that provides more flexible delivery of knowledge, thereby increasing student motivation and attainment, while making much more effective use of staff resources. Essentially, knowledge, in the form of interactive e-learning materials enables the educational process to become more personalised and student centred whilst releasing staff time to focus human expertise on student needs.

The use of leading-edge technology within HE is undoubtedly expensive. However, Laurillard (2006) demonstrates how cost-benefit modelling provides an effective way of understanding how technology can be used to achieve the level of productivity that makes personalisation affordable and enable institutions to offer innovative educational opportunities to staff who wish to encourage creative, critical and independent thought in their students.

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[3] Learning Activity Management System (LAMS) is a tool for designing, managing and delivering online collaborative learning activities (see www.lamsinternational.com/demo/intro_to_lams.html).

[4] Moodle is a course management system to help create online learning communities (see http://moodle.org).

8.2   Appendix 2: Institutions participating in the project

University of Aberdeen
University of Abertay Dundee
Anglia Ruskin University
City University London
University of Dundee
The University of Edinburgh
Edinburgh College of Art
University of Glasgow
Glasgow Caledonian University
The Glasgow School of Art
The Hebrew University of Jerusalem
Heriot-Watt University
The Law Society of Scotland
London Metropolitan University
Napier University Edinburgh
The Open University
Oxford Brookes University
QAA Scotland
Queen Margaret University
Sheffield Hallam University
University of St Andrews
University of Stirling
The University of Sydney
University of Teesside
Thames Valley University
UHI Millennium Institute
University of the West of England
University of the West of Scotland

8.3   Appendix 3: Institutions offering case studies

Anglia Ruskin University   Lydia Arnold
                                                   Senior Lecturer
                                                   Faculty of Education

Napier University   Ian Smith
                                                   Lecturer and Teaching Fellow
                                                   School of Computing

Oxford Brookes University   Dr Alison Le Cornu
                                                   Head of the Wesley Centre

University of Dundee   Dr Kathleen McMillan
                                                   Academic Skills Advisor
                                                   Centre for Learning and Teaching

University of Edinburgh   Dr Simon Bates
   Director of Teaching
                                                   School of Physics

The Open University   Dr Patrick Kelly
                                                   Assistant Director
                                                   (Learner Development)
                                                   Teaching and Learner Support

8.4   Appendix 4: Interview protocol for workshops and individual interviews

1   What do you understand by 'personalisation of the first year'?

2   Is it necessary to 'personalise' the first year? If so, why? If not, why not? What might be the potential benefits of 'personalisation of the first year'?

3   The following model is proposed to identify the critical stages in the first year student life cycle. Do you agree that this model is broadly appropriate? If not, what amendments would you make?
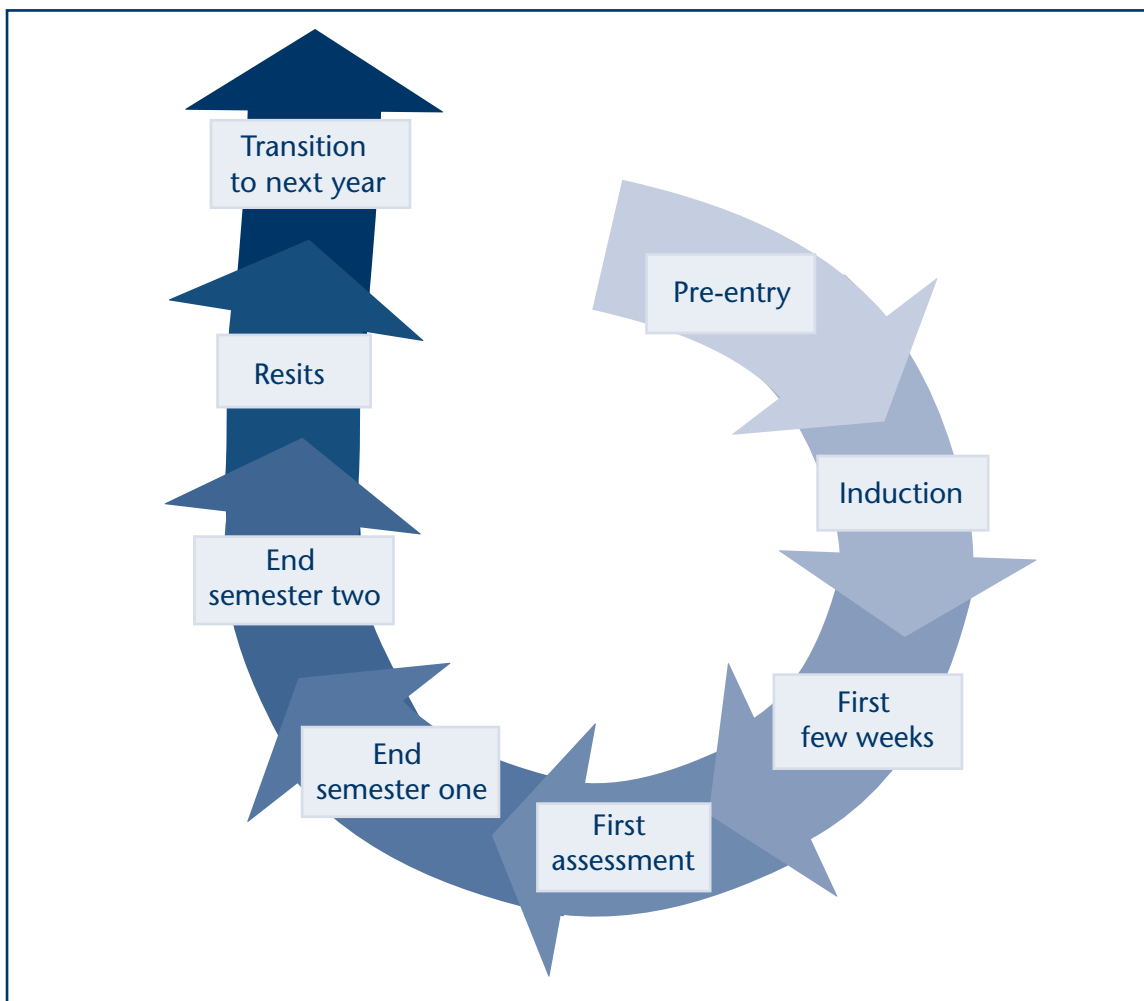
4   What do you do to personalise the first year student experience, either with respect to the life cycle stages identified or holistically if that is your preferred approach?

5   Any further comments to add about the impact/potential impact of personalising the first year student experience?

8.5   Appendix 5: Consultative workshops

Workshops on personalisation of the first year were held at the following events:

- Higher Education Academy (HEA) and sparqs 'Getting engaged' Conference
  Edinburgh 2 November 2006
- HEA Business, Management Accounting and Finance Annual Conference
  London 5 January 2007
- QAA Enhancement Themes Annual Conference
  Edinburgh 8 March 2007
- QAA Enhancement Themes Annual Conference
  Edinburgh 9 March 2007

8.6   Appendix 6: Case study template

Title of initiative
Contact person
Institution
What is the concept of personalisation upon which [this initiative] is based?
Target group of students?
Brief description of [initiative]
How effective has [the initiative] been?
How is [the initiative] evaluated?
How do students respond to [the initiative]?
What institutional challenges has [the initiative] presented?
What plans are there for further development of [the initiative]?
Further information available from:

8.7 Appendix 7: The First Year Experience: engagement and empowerment reports

Sector-wide discussion projects:

Gordon, G, (2008) *Sector-wide discussion: the nature and purposes of the first year*

Kochanowska, R, and Johnston, W, (2008) *Student expectations, experiences and reflections on the first year*

Practice-focused development projects:

Bovill, C, Morss, K, and Bulley, C, (2008) *Curriculum design for the first year*

Nicol, D, (2008) *Transforming assessment and feedback: enhancing intergration and empowerment in the first year*

Black, FM, and MacKenzie, J, (2008) *Peer support in the first year*

Miller, K, Calder, C, Martin, A, McIntyre, M, Pottinger, I, and Smyth, G, (2008) *Personal Development Planning (PDP) in the first year*

Knox, H, and Wyper, J, (2008) Personalisation of the first year

Alston, F, Gourlay, L, Sutherland, R, and Thomson, K, (2008) *Introducing scholarship skills: academic writing*

Whittaker, R, (2008) *Transition to and during the first year*