

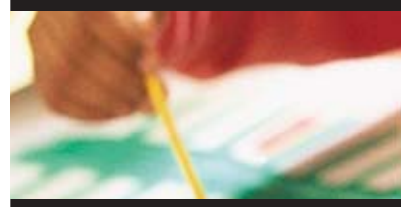
Personalised Learning

A COMMENTARY BY THE TEACHING AND LEARNING RESEARCH PROGRAMME



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The Teaching and Learning Research Programme (TLRP) is the biggest-ever investment in education research in the United Kingdom and is the largest programme currently managed by the Economic and Social Research Council.

Its aim is to shed light on learning and teaching throughout life, and to produce findings which will help improve educational outcomes for people of all ages.

As this publication shows, several TLRP projects inform the concept of Personalised Learning as an approach to school education. Because of the importance of the Personalised Learning approach and the high level of political attention being paid to it, the TLRP has run a seminar on the topic at the Department for Education and Skills and is now publishing this summary of its work in the field.

This booklet is the first in a series of TLRP policy publications and fits squarely with the ESRC's commitment to engaging both policy makers and practitioners with its research. We would welcome your response via the Teaching and Learning Research Programme's web site, www.tlrp.org.

Professor Ian Diamond AcSS
Chief Executive, Economic and Social Research Council

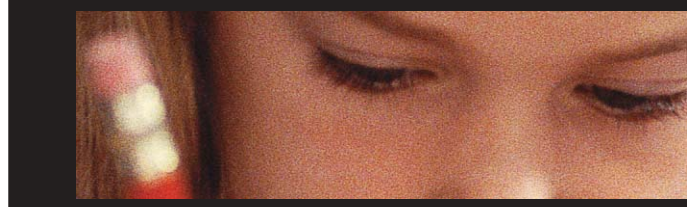


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What is Personalised Learning?

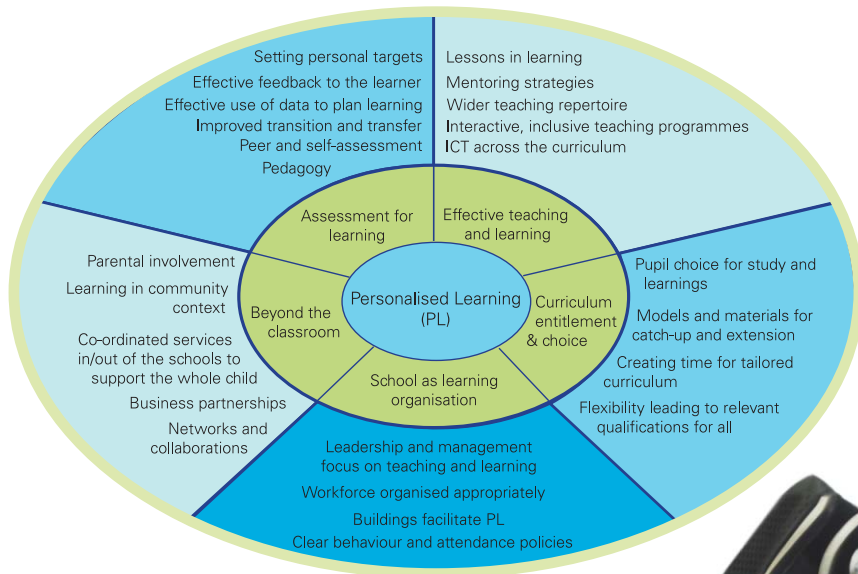
'Personalised Learning' recognises that the quality of learning is shaped by learners' experiences, characteristics, interests and aspirations. High quality teaching explicitly builds on learner needs – as well as on high expectations and good subject knowledge.

Personalised Learning is a 'Big Idea' for school education in England. It has been the focus of speeches by the Prime Minister, the Schools Minister and the Head of Standards at the Department for Education and Skills, and was the subject of a meeting at the 2004 Labour Party conference at which the Secretary of State for Education and Skills spoke. Schools Minister David Miliband referred to it most explicitly in his January 2004 North of England Education Conference speech when he suggested that Personalised Learning included: 'high expectation of every child, given practical form by high quality teaching based on a sound knowledge and understanding of each child's needs'. Personalisation underlies the Five Year Strategy for Children and Learners published by DfES in July 2004. It seems attractive, but there are also uncertainties.

Perhaps Personalised Learning can satisfy the aspiration of both political parties to provide more 'choice' in public services? Perhaps it can galvanise professional energies in schools through its focus on learners and learning, and produce a step change in the quality of educational provision? Perhaps it can help to transform the experience of disadvantaged children, as suggested in 'Every Child Matters' (DfES, 2003). Perhaps it is one of the new 'evidence-based' government initiatives? Perhaps it strikes a chord with the electorate in terms of what they want from a modern education service, and from public services more widely?

DfES has set out the components of personalised learning as follows:

KEY COMPONENTS OF PERSONALISED LEARNING



Here Personalised Learning consists of five core elements supplemented by an enormous but loosely defined range of policies and practices. More recently, Personalised Learning has been linked to the 'Every Child Matters' agenda and is seen as having a particular role in enhancing outcomes for disadvantaged children, although it is aimed at all pupils including gifted and talented.



From the perspective of professional educators, this approach is likely to be welcome. It seems that teaching and learning are to be considered as an integrated process, with awareness of contextual issues and of the needs of learners.

In September 2004 the DfES produced a new version of the five key components of Personalised Learning. They were:

- 1 **Assessment for learning** and the use of evidence and dialogue to identify every pupil's learning needs
- 2 **Teaching and learning strategies** that develop the competence and confidence of every learner by actively engaging and stretching them
- 3 **Curriculum entitlement and choice** that delivers breadth of study, personal relevance and flexible learning pathways through the system
- 4 **A student centred approach to school organisation**, with school leaders and teachers thinking creatively about how to support high quality teaching and learning
- 5 **Strong partnership beyond the school** to drive forward progress in the classroom, to remove barriers to learning and to support pupil well-being

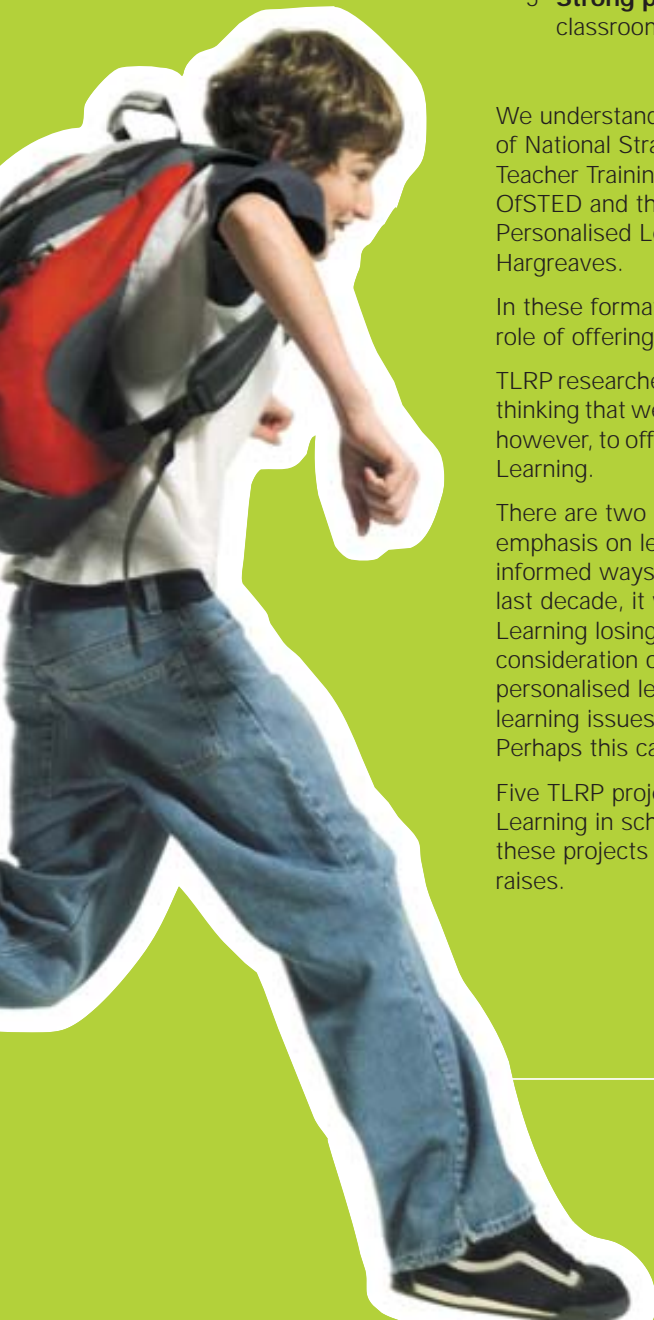
We understand that Personalised Learning is now moving forward through the work of National Strategies including the National College for School Leadership (NCSL), the Teacher Training Agency (TTA), the Qualifications and Curriculum Authority (QCA), OfSTED and the Specialist Schools Trust – where the same material covered by Personalised Learning components has been marshalled into nine gateways by David Hargreaves.

In these formative days for the concept, independent academic researchers have the role of offering both endorsement where appropriate but also constructive challenges.

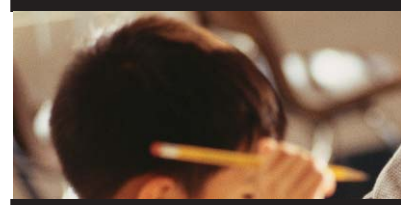
TLRP researchers see Personalised Learning as an example of the type of integrative thinking that we ourselves aspire to offer and we support it in principle. We hope, however, to offer research findings which will help develop thinking about Personalised Learning.

There are two main messages we want to convey. First, Personalised Learning's emphasis on learners and learning is welcome and is being tackled in evidence-informed ways. But second, given the pressures, constraints and expectations of the last decade, it will need considerable resolve to prevent discussion of Personalised Learning losing its focus on learners and learning and slipping back into over-simplified consideration of teaching provision and associated systems. The current concept of personalised learning may not therefore, have made full connections with lifelong learning issues, such as the development of learning dispositions and learner identities. Perhaps this can be achieved in due course.

Five TLRP projects are conducting research with particular relevance to Personalised Learning in school sectors - the focus of this publication. A brief report from each of these projects follows before we discuss the overall challenges that the concept raises.



every child matters



Learning How to Learn

Pupils are also taught to think more deeply by being given adequate time to answer questions designed to stretch them.

The TLRP's Learning How to Learn project, involving researchers from Cambridge, King's College London, Reading and the Open University, focuses on 'assessment for learning,' a key component of Personalised Learning. Mary James writes¹:



The Learning How to Learn project started working with 43 primary and secondary schools in 2001 and will complete its work in 2005. The idea is to stimulate changes in teachers' thinking and practices and then study the effects of these changes over time. Our starting point was the existing research evidence that Assessment for Learning improves both learning and attainment. Personalisation is inherent in this, because

Assessment for Learning (AfL) expects teachers to help pupils, individually and as groups, to find out where they are in their learning, where they need to go, and how to take their next steps.

Promoting learning autonomy is a big challenge for teachers

At the start of the project we asked 558 teachers to rate their practices and values in relation to Assessment for Learning (AfL). We found that teachers were already paying attention to their students' performance and that the majority perceived that they were making learning explicit. This appeared to be in broad alignment with their values. But promoting learning autonomy was a major challenge for most of our teachers.

Only 21 per cent of this sample reported high levels of practice in promoting learning autonomy in line with their educational values. The other 79 per cent reported that they were unable to fulfil their aspirations fully in this area.

However in one secondary school, a majority of teachers were able to achieve a high level on all these factors. So it is possible. This school also achieved 78 per cent of five A*-C grades in 2003 and a VA score of 102.1. The project is now investigating why aspirations are attainable in this school - and what happens in the others and why.

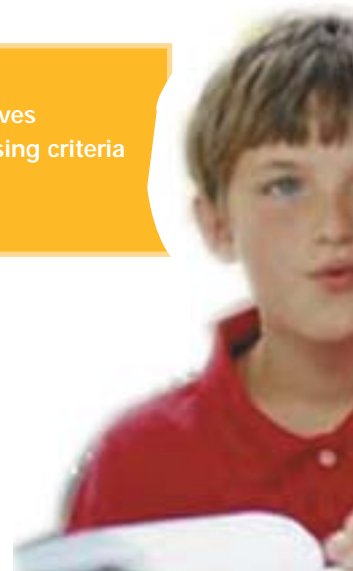
Personalised Learning is a dynamic concept

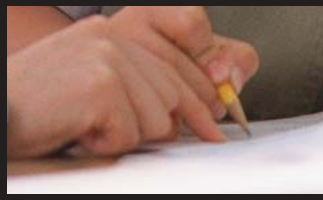
In our view, based on our evidence, Personalised Learning is not a matter of tailoring curriculum, teaching and assessment to 'fit' the individual, but is a question of developing social practices that enable people to become all that they are capable of becoming. Our research suggests too that AfL can sometimes be taken on at a superficial level without the deeper changes in practices and relationships which actually affect outcomes.

Pointers for practice:

- > Give pupils opportunities to decide their own learning objectives
- > Provide guidance on asking questions, giving feedback and using criteria to help pupils assess their own and one another's learning
- > Give pupils opportunities to assess one another's work

¹: The other members of the project team are: David Pedder, Sue Swaffield, John MacBeath, Patrick Carmichael (University of Cambridge), Bethan Marshall, Paul Black, Joanna Swann (King's College London), Leslie Honour (University of Reading), Robert McCormick, Alison Fox (Open University).





Case Study

Seven Kings High School in East London is heavily involved in personalised learning. Tracy Smith, deputy head, says that the school's involvement in the TLRP's 'Learning How to Learn' project has helped the school improve.

She says that the school's work on Assessment for Learning and her role as AfL co-ordinator for the London Borough of Redbridge have reinforced each other. In the school, assessment for learning was launched two years ago with an event for the whole school, after which departments volunteered to get involved. At the end of the first year, learnings about Assessment for Learning and Learning How to Learn were built into the school's new Learning and Teaching Policy. The first line of the current edition is: "Students should be taught how to learn and how to reflect on their learning."

One of the classroom activities which has seen most change is questioning techniques. Nobody puts a hand up in response to a question – that method is an open invitation to others not to focus. But people asked a question can "ask the audience" (the whole class) or "phone a friend," by asking someone else in the class. Tracy says that at first, pupils often used this option to put their friends on the spot, but are now more serious about it. "There is also a 50/50 option," she says, "but that is a little trickier because the teacher had to come up with four answers to choose from."

Pupils are also taught to think more deeply by being given a compulsory two minutes to answer questions.

This is one of number of measures that have made thinking by pupils "more explicit than before," says Tracy. "You now hear teaching skills being discussed in the staffroom and even by pupils. We had some Year 8 pupils talking about the subject in assembly and they asked to read the school's Learning and Teaching Policy, which is probably a first."

She says that in a world where schools are often sucked into centrally-driven initiatives, this is probably "the single most important" in terms of its impact on learning.





Improving the Effectiveness of Pupil Group work

'Group work can enhance motivation and attitudes to work'.



A second TLRP project, drawing on teams from London, Brighton and Cambridge, focuses on the effectiveness of pupil group work, in which pupils support each other's learning rather than participating in the one-to-many teaching model of the traditional classroom. This approach could be significant in achieving greater personalisation.

Peter Blatchford writes²:

Think about any classroom. Learning is going on there in three main ways. Pupils can be interacting with the teacher, usually in situations led by the teacher. They can be working alone on their own activities. These two ways of working are dominant throughout pupils' school years. But there is a third: pupils can be working with each other in groups. Our project is based on the view that there is a huge and unrealised potential for this third learning context.

True group work involves pupils working together as a team. It can be used in any part of the curriculum and for many different types of task. Its defining characteristic is that the balance of ownership and control of the work shifts toward the pupils. Group work involves children as co-learners, not just one student helping another.

The promise of group work: what is it good for?

Group work can enhance conceptual development and reasoning. It is probably best suited to learning which involves transcending a learner's current level of understanding to reach a new perspective, rather than the acquisition of new skills or strategies, which is better suited to learning from more skilful partners. It can also improve children's school attainments and therefore school performance.

Group work can enhance motivation and attitudes to work. It helps pupils believe that success in school can come through their own efforts, rather than from something fixed such as ability, or from teaching.

Group work can also aid social and communication skills, personal and social awareness and citizenship, and it can enhance relations between pupils. Opportunities to debate and recognise alternative points of view, and to be held responsible for one's own behaviour, can develop thoughtful attitudes to others. Group work can result in the kinds of skills employers say are important but which are not always acquired in schools – for example, speaking with confidence in front of others, engaging in a constructive way with others' points of view and team work.

Resistance to group work

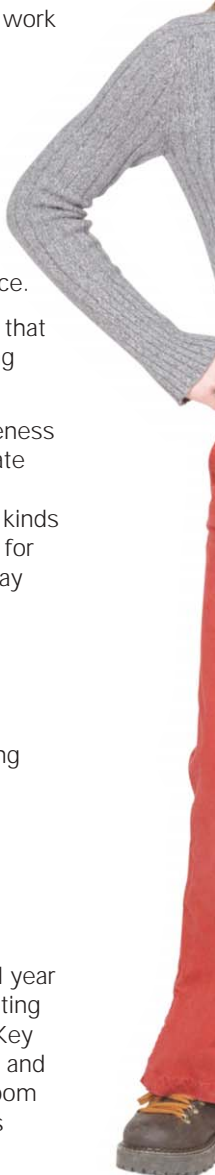
Teachers and schools often worry that group work will interrupt coverage of the curriculum. Teachers fear that group work is a distraction, especially from preparing pupils for end-of-Key Stage assessments.

Teachers also tend to view teaching in terms of individual pupils. They rarely see pedagogy in terms of group or peer based learning.

The effectiveness of pupil group work project

The project has developed and evaluated a programme to cover the whole school year and all curriculum areas across Key Stages 1-3. It offers teachers guidance on setting up and monitoring group work, such as how to be 'a guide on the side'. At each Key Stage it offers a handbook of activities to help pupils learn how to work in groups and develop advanced group work skills. It provides guidance on arranging the classroom for group work, group size and composition, and on troubleshooting the problems that may arise.

2: The other members of the project team are: Maurice Galton, Linda Hargreaves, Charlotte Page, Susan Steward (University of Cambridge); Peter Kutnick, Cathy Ota, Lucia Berdondini, Linda Rice, Helen MacIntyre, Steve Hodgkinson (University of Brighton); Ed Baines, Ann Brown, Anne Chowne, (Institute of Education, University of London); Anthony Pell (University of Leicester).





Several further applications of group work are being developed:

- > Whole school approaches to group work, covering each Key Stage
- > Group work for schools working under difficult circumstances and where improvements in pupil behaviour are sought
- > Group work as part of a policy of inclusion in schools

Pointers for practice:

- > **Opportunities for effective group work can be found across the curriculum**
- > **Pupils often need to be helped to develop skills in working effectively in groups**
- > **Teachers can benefit from guidance on setting up and working with groups, monitoring and scaffolding groups, and organising briefing and debriefing sessions.**
- > **Teachers need to think strategically about the use of groups, considering group size, composition and stability over time, in relation to particular kinds of tasks**
- > **In general it is better for teachers to be a 'guide on the side' in relation to groups - to allow pupils independence in learning**



Case Study

Spring is here! The view of one Phase 2 teacher of a Year 5/6 class

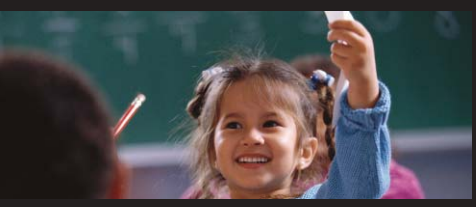
The class lists were posted on the wall and the sight of mine evoked wide scale staff sniggering. Yes, my Year 4/5 children were the class to avoid of 2002/03. But after the first couple of weeks I realised that they weren't actually that bad. They had poor social skills and a very poor attitude towards working, and as a group they suffered from very low self-esteem. The class had experienced quite a high turnover of Special Educational Needs (SEN) and English as an Additional Language (EAL) learners.

Well, a leaflet arrived in my pigeonhole claiming that group work was the answer to all my prayers. I duly signed up and arrived at the first session curious as to how group work could help me whilst at the same time feeling a bit apprehensive.

With trepidation I tried my first two activities. Both involved a lot of physical contact and judging by previous performance I was prepared for arguments, cuts and bruises. But no - to my amazement I witnessed co-operation and enjoyment. After the initial games and icebreakers the next phase of the programme involved forming stable groups. In order to maximise the potential for the children to work together I had to do some careful manoeuvring of furniture. We tried different combinations of children and following a few tweaks we had the groups firmly established.

Looking back now I can see the need for the children to work through the conflict and learn ways of resolving their difficulties. You want to stop the noise and regain the control you feel you've lost, but no - you have to be brave and leave them to it!

The activities provided were very good, particularly those that focused on teaching individual skills for example 'listening'. As a teacher of 'older' children I often took it for granted that they understand what it means to be a good listener, that they knew what good listening 'looked like' and 'sounded like'. It was only when I broke it down to actual skill level that I realised that maybe they didn't know after all. The science activities that the groups went on to do inspired me to look for more interesting activities elsewhere. I found myself using group work across the curriculum. We were learning and having fun at the same time. Their behaviour is good, as is their attitude to learning.



Consulting Students about Teaching and Learning

'Pupil consultation is not simple. The two main constraints that teachers talked about were space in the curriculum and time'

A key issue in the personalisation of learning is the ability of the pupil to talk about their experiences and make their views known. A TLRP network, involving researchers from Cambridge, Sussex and London, has led work on consulting pupils about teaching and learning. The research reflects growing interest in "pupil voice" which is being taken up by an increasing number of schools and LEAs. It is directly relevant to the concern in Personalised Learning for curriculum entitlement and choice and for schools as learning organisations. Jean Rudduck writes³:



Consultation is about understanding what learning is like from the pupil perspective and trying to make it better for different pupils and different groups of pupils. It is a vital part of Personalised Learning.

Our project was designed

- > To understand the kinds of things pupils have to say about teaching and learning; to gather evidence of the impact of consultation on pupils, teachers and schools
- > To offer guidance to teachers on ways of consulting pupils and the conditions of consultation
- > To understand the problems and possibilities of building a culture in schools where dialogue is open and non-threatening

We worked in six linked projects with 48 primary and secondary schools in different parts of the UK.

What have pupils been consulted about?

School-wide issues, such as:

- > Changing systems of rewards and sanctions
- > Revising content and presentation of school rules
- > Getting the School Council to work better

Year group issues, such as:

- > Planning an induction for next year's Year 8, 9 or 10
- > Planning parents' evenings
- > Improving homework

Classroom issues, such as:

- > Things that help pupils learn
- > Things that get in the way of learning
- > Ways of catching up if you don't understand or miss work

The classroom is seen by many pupils as the teacher's territory. Action moves to the teacher's rhythm and pupils are wary about commenting on teaching and learning. In primary schools, the reluctance springs from a view that 'it's not the pupil's job' to comment on what the teacher does.

However, pupils did tell us that there were things that they would like to change. They ranged from the fairly trivial ('I'd like to tell her how to spell difficult and that it's got two 'f's but I can't do that') to more fundamental pedagogic concerns.

³: The other members of the project team are: Madeleine Arnot, John MacBeath, Donald McIntyre, Nick Brown, Helen Demetriou, David Pedder, Julia Flutter, Kate Myers, Beth Wang (University of Cambridge); Michael Fielding (University of Sussex); Diane Reay (London Metropolitan University).



In secondary schools, wariness was more a reflection of pupils' anxiety about retaliation. Teachers might shout at them, give them a detention, or 'won't ever let you forget it'. However, where schools have established a more trusting and open relationship, what pupils say can make a difference to perceptions and practices at all three levels.

Issues in consulting pupils

Pupil consultation is not simple. The two main constraints that teachers talked about were space in the curriculum and time. Some teachers felt obliged to relegate consultation to the end of the summer term, after the tests or exams were over.

Consultation is also difficult because it challenges traditional power relationships and assumptions. Both teachers and pupils can feel uneasy with it at first. The two most important issues are equity and authenticity. Consultation assumes social confidence and linguistic competence. More self-assured middle class students who talk the language of the school tend to dominate conversations and teachers tend to privilege them in consultation. But one of the strengths of consultation is the opportunity it provides to hear from the silent – or silenced – pupils and to understand why some disengage and what would help them get back on track.

Authenticity is the other major issue. Pupils are very quick to detect when the consultation is tokenistic. Are teachers really interested – or are they handing out evaluation sheets in the last 30 seconds of the lesson? Are they responding, or does nothing happen after the consultation has been completed? Does the agenda for consultation consist of questions that teachers think are important or questions that pupils think are important? Is the school limiting consultation to topics that do not challenge teachers personally, such as uniforms, or is it prepared to open up issues central to teaching and learning in the classroom?





Enhancing pupil participation through consultation

96 teachers completed our End of Project survey. 84 per cent said that consultation was having a positive impact on pupils' self-esteem; 80 per cent thought that consultation was helping pupils develop a more positive attitude to school and to learning; and 75 per cent thought it was helping pupils develop more positive attitudes to teachers. Teachers were often surprised at how insightful, responsible and constructive pupils could be. Consultation helped them to believe that some pupils could be different.

What's in it for schools?

Teachers say that consultation provides:

- > A practical agenda for change that pupils can identify with
- > Enhanced engagement with school and with school learning
- > A more partnership-oriented relationship between pupils and teachers
- > A basis for developing democratic principles and practices
- > A more inclusive approach to school self-evaluation
- > Development of the capacity of the school as a learning organisation

What's in it for pupils?

Pupils say that they gain:

- > The feeling that you are respected and that you are listened to and taken seriously
- > The awareness that your views are having an impact on how things are done
- > The feeling that you have greater control over how you learn
- > The scope to talk about your own learning
- > More confidence about how to improve it
- > More positive feelings about learning and about school

Pointers for practice:

- > Build support among staff (who may be sceptical) by presenting evidence of the positive outcomes of consultation, drawing on the work of a small group of teachers and pupils in your own school or reported work from other schools
- > Be sensitive to the anxiety experienced by teachers who have not before consulted pupils about teaching and learning – and also pupils' concerns and anxieties
- > Ensure that other school policies and initiatives are in harmony with the principles and values that underpin pupil consultation and that all areas of school life offer opportunities for pupils' voices to be heard

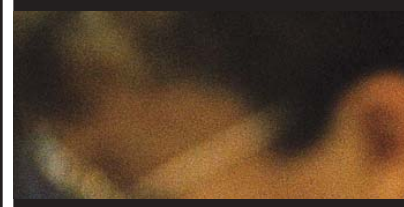
Case Study

Pupils at Hartsdown Technology College in Kent have been supported to express their views about the school via a Student Research Group. Over two months they evaluated 25 lessons.

Especially popular were teachers who:

- > Arrive on time, welcome the students and offer an interesting starter activity
- > Smile, make good eye contact, listen with interest
- > Move around, rather than sitting or standing still
- > Explain the lesson clearly before it starts
- > Break up the lesson into chunks such as talking and discussion, reading and writing
- > Let you talk quietly if you finish your work
- > Give out work that is suitable for everyone's ability
- > Tell jokes, make the lesson fun, allow us to laugh





Home School Knowledge Exchange

'We are obtaining evidence that children's learning in school can be enriched if it makes connections with their out-of school lives'

A key component of Personalised Learning is its extension beyond the classroom. A TLRP team at the University of Bristol, working on our Home-School Knowledge Exchange Project, has looked at this vital aspect of personalisation. Martin Hughes writes⁴:



Providing learners with opportunities to bring together their learning experiences inside and outside school is an essential part of personalising it.

Our project is working in collaboration with the Local Education Authorities of Cardiff and Bristol to develop new ways in which parents, teachers and children can exchange their knowledge to enhance learning. The project has three strands, focusing on literacy at Key Stage 1, numeracy at Key Stage 2, and primary/secondary transfer. We have been working in 12 primary schools and four secondary schools across the two cities.

The project is based on our belief that children and young people live and learn in two different worlds – inside and outside school. Bringing together these worlds in a way which focuses on learning will enhance learning in both settings.

Much learning goes on outside school, including learning about friendships and relationships, learning through games, sports and pastimes, learning through reading books, comics and magazines and learning through watching TV or surfing the internet. This kind of out-of-school learning is usually driven by interest or perceived need rather than the demands of the curriculum, and is very important to young people.

School and out-of-school learning are often kept apart. We believe that this separation is not inevitable. We have worked with teachers, parents and children to develop Home School Knowledge Exchange activities, which aim to bring closer what is happening inside and outside school. We believe that this enhances learning both inside and outside school.

Knowledge exchange between school and home

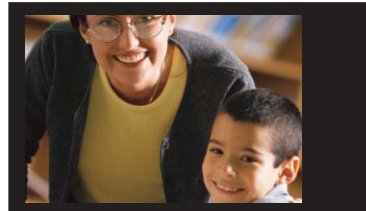
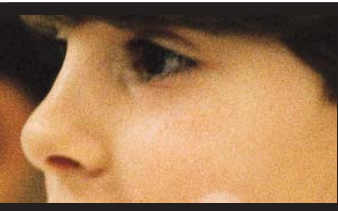
We make a distinction between activities that attempt to take the school into the home and the wider community, and those that try to operate in the opposite direction.

We have, of course, been concerned with enhancing the flow of information about school learning to parents and carers. We have therefore been:

- > Using focus groups to find out what parents want to know about school learning
- > Making videos for parents showing their children engaging in school learning
- > Putting information about school learning out in the community – for example, in the entrance to a supermarket across the road from a school.

We hope that if parents and carers have greater awareness of the nature of school learning, what they do with their children at home may be more aligned with, and supportive of, what is happening in school.

4: The other members of the project team are Jane Andrews, Anthony Feiler, Pamela Greenhough, David Johnson (University of Oxford), Elizabeth McNess, Marilyn Osborn, Andrew Pollard (University of Cambridge), Leida Salway, Mary Scanlan, Vicky Stinchcombe, Jan Winter and Wan Ching Yee - all University of Bristol except where stated



We have also been developing new ways of bringing home or out-of-school learning into school. Examples include:

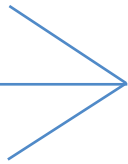
- > Giving children disposable cameras and asking them to take photographs of some aspect of their out-of-school learning (e.g. 'everyday maths') and bring them into school
- > Holding informal meetings where parents and children can raise their concerns about transfer to secondary school, where the role of the teachers has been to listen rather than impart information.
- > Using 'shoeboxes' to help children collect personal artefacts from home and bring them into school, where they can then be used in a range of curriculum-related learning activities. See the case study for more details.

We are obtaining evidence that children's learning in school can be enriched if it makes connections with their out-of school lives. It seems that 'shoebox' activities can have a positive impact on children's motivation and engagement with school learning. We cannot yet say whether such increased engagement is also having a longer-term impact on their attainment.

Pointers for practice:

- > **Recognise the learning which takes place outside school (e.g. by asking children to bring in artefacts that have significance for them, such as photographs, reading materials, games, favourite videos/DVDs etc), and look for ways of using it in school**
- > **Treat diversity among students as an opportunity rather than a problem. Exploring the richness of children's home lives can be a highly motivating stimulus for learning in school. With careful planning and classroom organisation, the multiplicity of ideas, issues and 'stories' that emanate from 30 individuals can be shared with all**
- > **Look for ways of using the technologies which many students engage with outside school - a systematic audit of what children are up to with their latest gadgets is a good starting point**
- > **Raise the profile of home-school communication both inside and outside school. Parents are very keen to have clear, specific and up-to-date information about what their children are learning about in school and how they can help. If parents don't attend school meetings, ask whether this is about 'hard to reach parents' or a 'hard to reach school'**





Case study

Drawing on children's out-of-school worlds to stimulate creative writing

Maggie Smithson of Sefton Park Infants School in Bristol wanted to explore ways in which she could use children's out-of-school experiences to develop and motivate their creative writing. She drew on the 'shoeboxes' idea developed within the Home School Knowledge Exchange project, and asked the children in her Year 2 class to collect items which they thought would help stimulate their writing.

She sent home a newsletter to parents and carers just before Christmas in which she explained the activity, and described some of the things which the children had suggested they might include in their shoeboxes – such as special stones or crystals, objects found on a beach, photos, Christmas decorations, toys, teddies and drawings. The parents were asked to discuss their children's choices with them, but not to buy anything specially.

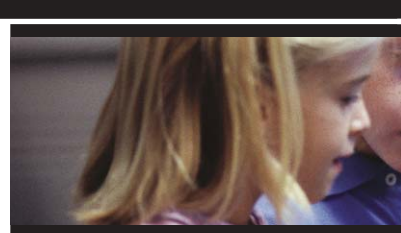
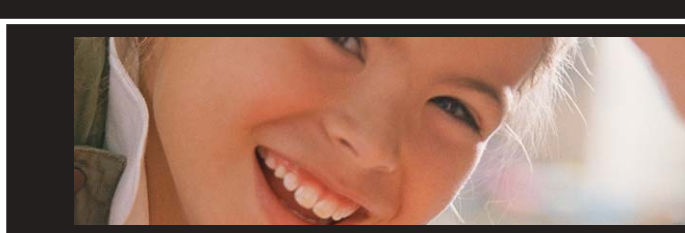
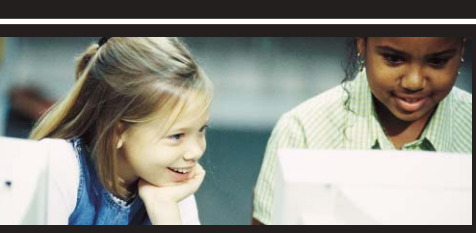
After Christmas, the children returned to school with a wide range of objects in their shoeboxes. They gave presentations to their classmates about the contents of their boxes and how they might use them in their writing. Then the children started writing. Most of their writing was stories, and many of the stories had a magic theme which drew on the objects in the shoeboxes.

Amy, for example, had brought in a 'very special necklace' which belonged to her mother. In Amy's story, the necklace appeared as treasure found by a little girl out walking in the woods. In the story, the necklace acquired magic powers – 'when I glow you are not safe RUN'.

The shoebox activity provided revealing insights into the out-of-school lives of many of the children. For example, Maggie described one of the boys in her class, Douglas, as initially being a self-contained child with whom it was hard to build a relationship. It turned out that Douglas was particularly interested in birds and had two birds at home. Douglas put photographs of his birds in his shoebox and also some feathers. When Maggie and the other children discovered this interest and expertise, Douglas became much more responsive in class. His status rose as he became 'the classroom expert' on birds.







InterActive Education: Teaching and Learning in the Information Age

'ICT is often associated with high levels of student engagement, whether in school or at home'

Information Technology is expected to provide a key element of successful Personalised Learning. A TLRP team at the University of Bristol has looked at the use of advanced technology to promote learning in classrooms. Rosamund Sutherland writes⁵:



An important aspect of schooling is to enable students to enter new knowledge worlds - the world of history, of English, of a foreign language, of science, of music or of mathematics. We have worked with primary and secondary school teachers to investigate the ways in which information and communications technology can be used to enhance learning, with a particular focus on subject knowledge.

Mathematics teachers have investigated the ways in which Information and Communications Technology (ICT) can enhance the learning of functions and graphs, geometry and statistics. English teachers have investigated the ways in which ICT can enhance learning about language and spelling, writing for an audience, and the production of multimedia texts. Music teachers have investigated using ICT to enhance the learning of composition.

Our project has five strands. Each looks at ICT in relation to a specific aspect: teaching and learning, policy and management, subject cultures, professional development, or learners' out-of-school uses of technology.

Some familiar and some challenging conclusions

ICT resources are readily available in schools, yet they remain under-utilised. Examples include drop-down menus for modern foreign languages, the Oxford English Dictionary online for English, graph-plotting software for mathematics and composition software for music. In contrast young people are exploiting the potential of ICT at home, although teachers often underestimate the ways in which students' out-of-school expertise with ICT could impact on school learning.

The project found that ICT use is often associated with high levels of student engagement, whether in school or at home. Students can work for extended periods of time investigating their own questions and experimenting with ideas in an interactive and iterative way. We have seen this whether students are investigating language and spelling, finding out the properties of quadrilaterals, developing their own compositions in music or writing emails to a German pen pal.

However, we have found that extended individual engagement can lead students to acquire idiosyncratic knowledge which is at odds with the intended learning. For example, when a group of primary school students were investigating the properties of a parallelogram through interacting with geometry software, they recorded the following:

"It has four sides; they are like train tracks, they are parallel; it doesn't have any right angles; it's the colour turquoise, it can be a diamond"

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

⁵: The other members of the project team are: Susan Robertson, Federica Olivero, Pat Triggs, Linda Baggott la Velle, Sally Barnes, Richard Brawn, Nick Breeze, Roger Dale, Fern Faux, Marina Gall, Sasha Matthewman, Angela McFarlane, John Morgan, Celia Tidmarsh, Elisabeth Lazarus, Jocelyn Wishart (all University of Bristol); Peter John (University of Plymouth), Alison Taylor (University of the West of England), Keri Facer (Nesta FutureLab).



Using digital video, we are able to capture classroom processes of knowledge construction and are beginning to understand how effective teaching and learning with ICT involves finding ways of building bridges between 'individual and idiosyncratic' and 'consensual' knowledge. For example, when Marnie Weeden worked with 13-14 year old students on learning about proof and geometry she explicitly built a process of sharing ongoing work in classroom activity. This impacted on learning and knowledge building. As her students explained:

"The fact that we were sharing put a competition element into the investigation, plus we were able to compare what we had found out. It was a group effort so when a group found out about something another group could continue from there".

"It kinda made you work more because you knew you had to show something at the end of it. If you don't have to show it, what's the point of working hard at it?"

Constructivist views of learning have tended to assume that it is possible to move seamlessly from informal knowledge worlds into the more formal worlds of school knowledge. We disagree with this perspective. Students are unlikely to develop ideas about mathematical proof from everyday reasoning without the support of a teacher. Nor are they likely to develop ideas about the Italian Renaissance from their ideas about popular culture unaided.

If Personalised Learning becomes synonymous with individualised learning, this is likely to limit the knowledge creation of future generations of citizens. If personalisation becomes linked to participation in communities of learning and partnerships between teachers, parents and young people then we will be building a solid basis for educating young people for the 21st century.

Pointers for practice:

- > Understand the ways in which ICT tools can enhance and transform students' learning of a particular knowledge domain (for example, composition software in music, spreadsheets in mathematics)
- > Create in the classroom a community of learners in which students have the opportunity to build on their experience of using ICT out of school
- > Become aware of the creative tension between idiosyncratic and consensual knowledge within the subject you are teaching
- > Develop your role as orchestrator of students' learning so that the whole group shift from idiosyncratic to consensual ways of knowing





Case Study

Simon Mills, teacher at Teyfant Community School in Hartcliffe, Bristol, is concerned that Information and Communications Technology should not be taught in isolation. He wanted to use it to promote the development of key mathematical ideas, using a highly tangible – indeed edible – example.

Enthusiasts believe that there is never an equal share of each colour Smartie in a tube. Year 4 pupils investigated this accusation, and finding it was true, tried to predict how many tubes he would have to buy to get an equal share of each colour

In twos and threes the children tested 29 tubes of Smarties. They used Excel to investigate. They asked two questions: Does every tube of Smarties contain the same number of each colour? How many tubes of Smarties would I have to buy to get a fair share of my favourite orange ones?

He began by following the numeracy hour structure for the task. But as children became more involved, this became increasingly difficult. It was a timely reminder that learning doesn't happen in straight lines. It is a social and shared experience which at times can appear chaotic and become fragmented as we share ideas and try them out.

"I wanted to focus the children on the function of charts and to encourage them to think about the features of charts which make them useful in helping us to think mathematically. The children used mathematical language associated with data handling throughout the project - frequency, share, percentage, axis, scale, legend etc. As we dealt with percentages a strong communal fascination and curiosity developed around the realisation that Excel does not always apply an even percentage share to all sets, even if the sets contain equal frequencies."

"When they started to address the second question, they picked up on the idea that the more data they had the more accurate their predictions might be. Some groups selected groups of data to create their final charts, some created a progression of sizes of charts."

"Some of the children suggested that we should produce a book about our project. I suggested that they could use the skills in using Publisher that they had developed in other projects. We explored copying and pasting elements from Excel into Publisher. We agreed that it would be a good idea to use our two questions to structure the reports. I encouraged them, as they created their pages, to think about "What makes a good chart work well?"

The choices they made about presenting their data provide interesting evidence of their mathematical understanding.







Challenges in the Development of Personalised Learning

“We are sure that Personalised Learning is of great potential significance and that further work is needed to develop it. We would be glad to help by drawing on TLRP project findings and thematic analyses both in relation to school, and other sectors.”

TLRP's projects have been exploring aspects of Personalised Learning and we hope that they will contribute to its successful implementation and to the improvement of learning outcomes for children and young people in schools. However we believe there are four particular challenges which the development of Personalised Learning faces. These are:

- > Conceptualisation
- > Authenticity
- > Realism
- > Risks

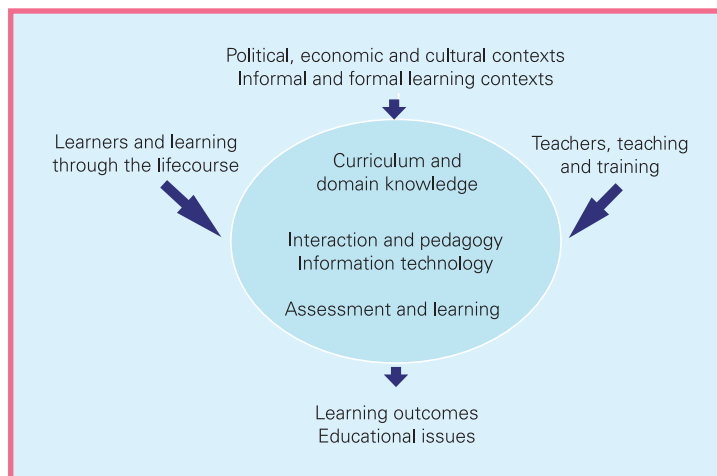
Conceptualisation: Are the components of Personalised Learning and the relationships between them empirically supported and sufficient?

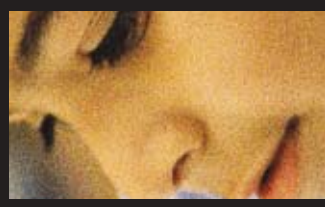
The idea of Personalised Learning has been developing rapidly. The concept has political attractions and is consistent with the Government's approach to public service reform and delivery. But its logical and empirical base can be challenged. How are its components chosen and what do they involve? Committed educationalists within DfES have been working on the factors which they hope will, if implemented appropriately, enhance learning outcomes and provide 'equity and excellence'. But these conclusions are still a theory – a set of propositions.

Research would nevertheless broadly endorse the basic structure which seems to have emerged. Curriculum, pedagogy and assessment have long been established as the basic elements of classroom practice, and to draw attention to the school context and beyond in which they exist completes a well founded structure. But the details of each component remain open to question. There might well be other candidates for inclusion.

TLRP faces a similar conceptual challenge and has been working on its own theoretical model for use in thematic analysis across its 40-plus empirical projects. This model is shown below.

TLRP'S SIMPLE MODEL OF FACTORS IN TEACHING AND LEARNING





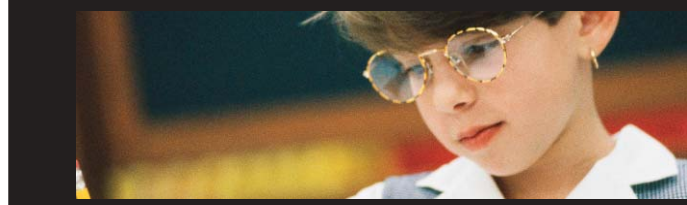
The two models have much in common but there are significant differences too. The Personalised Learning representation is more specific and purposeful. It is offered as 'ready to go' with the implicit promise that it will 'make a difference'. Reflecting its research roots, the TLRP model is more abstract. The programme exists to generate new knowledge through synthesis of project findings, and then to offer it for application. Over the next few years, TLRP's analysis will become increasingly concrete as it is applied to different educational sectors. But our stance is likely to remain a little more cautious than that of the Personalised Learning community.

We argue that learning is shaped not only by institutions, teachers and learners, but also by external or contextual factors. These include target-setting, inspection, qualifications, accountability and funding systems. If Personalised Learning is to be introduced successfully, national government agencies, including OfSTED, NCSL, QCA and TTA, as well as the DfES, will need to align their policies appropriately.

It is excellent to know that these bodies are represented on a coordinating board and are working together to achieve personalisation. Even so, after many years of rather different performance drivers, the challenge of achieving smooth integration across these agencies and their policies and practices remains considerable. Further coordination will be needed at local and regional levels as well as nationally, with strong engagement from LEAs and others.

The concept of Personalised Learning is still developing and holds much promise. We believe that the five-part structure will be found to be essentially robust, but that the detailed suggestions presently attributed to each component are likely to be subject to challenge and development.





Authenticity: Is this initiative really about learning? Or is it, despite the title, still primarily about teaching and curriculum delivery?

Successive governments have been responsible for radical changes in the education system. Although many performance targets have been met, there have been criticisms of the degree of central control involved, the pressure of inter-school competition and the extent to which improvements have been driven by transmission models of teaching as curriculum delivery. It has been argued that an unintended consequence of recent policies has been to undermine motivation for some pupils, which in turn has caused annual gains in performance to level off.

This means that the new concept of Personalised Learning is likely to generate scepticism in some circles. Does it represent genuine new thinking about how teaching and learning can most effectively take place? By drawing attention to the personal, and to learning rather than teaching, it enlists a softer vocabulary than that of targets, performance and delivery. The Secretary of State has openly explained that it was felt 'necessary and right to take a fierce grip and deliver dramatic change quickly'.

However, 'once the basics are in place and we want to move beyond them to excellence, we need a new sort of system that is not based on the lowest common denominator' (Charles Clarke, Foreword to the Five Year Strategy for Children and Learners, DfES, 2004). But what exactly is the relationship between these ways of thinking? Can a simple switch be achieved? It seems unlikely. If this issue is left unresolved there is a risk of the DfES being accused of 'spin' by a sceptical teaching profession.

The authenticity of a focus on Personalised Learning raises three further issues. First, personalisation is not the same as individualisation. Groups of learners have many common features. Teaching is often most effective when it focuses upon helping learners to overcome their shared misconceptions and difficulties, or to build on strengths. This also means that there are patterns of similarity and difference to be studied, which is the role of educational researchers. It also means that education systems can be developed to provide support and challenge groups of learners. System-wide development around a concept such as Personalised Learning may be able to achieve this.

Second, there is a question of the extent to which the present application of personalised learning fully reflects available research on learning. For example, the five statements below capture important insights from constructivist and social constructivist research:

- > Learning requires the active engagement of the learner, underpinned by positive learning dispositions
- > Learning involves the development of understanding and the transformation of information into new knowledge through application
- > Prior learning is a powerful determinant of a learner's capacity to learn new things
- > Learning proceeds successfully if environmental factors, which are often shared by groups of learners, are elicited and taken into account
- > Learning is a process with both individual and social dimensions and outcomes

Finally, there is the extent to which life-long and life-wide issues have been considered. This emphasises the development of positive learning identities and dispositions through informal and formal learning experiences and in successive settings. Such ideas are a focus for TLRP and other research initiatives. The learner, moving through life and experiencing education in that process, remains underdeveloped at present as a theme within the conceptualisation of Personalised Learning.



Realism: Are the ambition and rhetoric over-reaching themselves?

Holistic Personalised Learning ideas are attractive, but implementing the change and development on the very large number of fronts which they imply is a huge challenge.

The school system has been subject to deep and wide change in recent years. There could be questions about the system's ability to cope with further innovation. Nor is it safe to assume that practices which prove effective in some places will succeed in others or that those on which case-study schools have focused can be easily combined. The problem of scaling up is considerable and workforce reform introduces fresh challenges of its own.

Nevertheless, if the coherence and empirical grounding of these ideas can be developed and appropriate systems for implementing them can be found, we believe that a Personalised Learning initiative could be widely welcomed by the teaching profession, parents, employers and others. In association with the 'Every Child Matters' initiative, and addressed in a spirit of openness, exploration and collaboration, it could really make a difference.

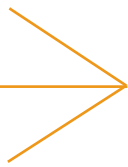
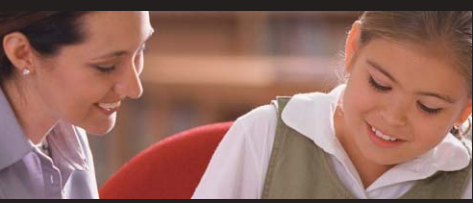
Risks: What are the major difficulties likely to be and how can they be managed?

We identify five major risks.

- > We agree with a DfES Review Team in April 2004 that the concept of Personalised Learning has suffered from a 'lack of clarity', but we also commend the progress which has been made since then. A recent document suggests that 'Personalised Learning is an aspiration or philosophy' providing 'space within which others can operate' (DfES, September 2004), which we feel to be an encouraging stance. Given the continuing uncertainty about the meaning of the term, risk avoidance calls for an invitation to the profession to join in a constructive process of refinement
- > Proposed improvements in pupil learning often generate challenges for teacher learning. The response of the profession is therefore a major risk factor. Personalised Learning raises issues of workload and of workforce reform. The support of the English professional associations, the GTC and the TTA, will be vital
- > At an even deeper level, Personalised Learning challenges the mutual accommodations which often grow up in routine teacher-pupil classroom practices and calls for high expectations, positive responses and new forms of learner-aware pedagogy. This will need to be followed through, on the ground, with appropriate support and accountability systems
- > Personalised Learning requires 'joined up government' between key agencies within and beyond education
- > Finally, there is the risk of not rising to these challenges. In our view, the development of new ideas about Personalised Learning is exciting, worthwhile and necessary. It appears to provide an opportunity to envision new forms of educational provision and, in this respect, we warmly welcome it

TLRP is committed to improving outcomes for learners of all ages. Our responsibility is to study and analyse as objectively as we can and to offer findings and insights to the public domain.

We are sure that Personalised Learning is of great potential significance and that further work is needed to develop it. We would be glad to help by drawing on TLRP project findings and thematic analyses both in relation to school, and other sectors.



Acknowledgements

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We would also like to acknowledge the editorial support of Martin Ince, TLRP Media Fellow, in the production of this publication and also the vital liaison role fulfilled by Victoria White of the DfES.

Further Reading

Personalised Learning entered policy discourse when Tony Blair, Prime Minister, mentioned it in his speech to the 2003 Labour Party conference, <http://politics.guardian.co.uk/labour2003/story/0,13803,1052752,00.html>. The reference is in part two of the speech.

Schools minister David Miliband spoke on Personalised Learning at the North of England education conference in Belfast, January 2004 and in a further speech in May 2004. They can be seen at http://www.dfes.gov.uk/speeches/search_detail.cfm?ID=95 and http://www.dfes.gov.uk/speeches/search_detail.cfm?ID=118 respectively,

Personalised Learning paper by Martin Johnson of the Institute of Public Policy Research: <http://www.ippr.org/research/index.php?project=233¤t=23>

David Hopkins, head of standards and effectiveness at DfES, spoke on personalised learning at the ConfEd conference in January 2004. His Powerpoint presentation is at <http://www.virtualstaffcollege.co.uk/download/David%20Hopkins.ppt>

Edexcel's briefing paper on Personalised Learning may be found at <http://www.edexcel.org.uk/aboutus/PoliciesAndResearch.aspx?id=59385&ciid=183361>

For an Australian perspective see http://www.worldedreform.com/intercon2/liz3_6.htm

For a counter view by Helene Guldberg, see <http://www.spiked-online.co.uk/Articles/0000000CA60E.htm>

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DfES (2004) Five Year Strategy for Children and Learners, July, London: DfES.

DfES (2003) Every Child Matters, London: DfES

Last, G. 2004 'Personalising Learning: adding value to the learning journey through the primary school', September, London: DfES.



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The following research projects are featured in this booklet:

Learning how to learn – In classrooms, schools and networks

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Tel: 01223 369631

E-mail: mej1002@cam.ac.uk

www.tlrp.org/proj/phase11/phase2f.html

Improving effectiveness of pupil groups in classrooms

Prof Peter Blatchford, Psychology & Human Development, Institute of Education, University of London, 25 Woburn Square, London WC1H 0AA.

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E-mail: p.blatchford@ioe.ac.uk

www.tlrp.org/proj/phase11/phase2a.html

Consulting pupils about teaching and learning

Prof. Jean Rudduck, Faculty of Education, Homerton Site, Hills Road, Cambridge CB2 2PH.

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E-mail: jr10026@cam.ac.uk

www.tlrp.org/proj/phase11/phase1dsept.html

Home-school knowledge exchange and transformation in primary education

Prof. Martin Hughes, Graduate School of Education, University of Bristol, 35 Berkeley Square, Bristol BS8 1JA.

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www.tlrp.org/proj/phase11/phase2e.html

Interactive education: teaching and learning in the information age

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www.tlrp.org/proj/phase11/phase2i.html



About this publication

This publication applies ongoing educational research to contemporary interest in 'Personalised Learning'. It uses research evidence to illuminate the possibilities of Personalised Learning and suggests challenges which must be met if the concept is to be coherent, authentic, realistic and practical to implement. It is illustrated with case studies and practical pointers for teachers.

This is the first in a planned series of Teaching and Learning Research Programme commentaries designed to make research-informed contributions to contemporary discussion of issues, initiatives or events in UK education. They are under the research programme's editorial control, but their production and distribution may be supported by sponsors. For this publication, we gratefully acknowledge the sponsorship of the Department for Education and Skills.

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