EFFECTIVE TEACHING IN GIFTED EDUCATION

USING A WHOLE SCHOOL APPROACH



ROUTLEDGE

Effective Teaching in Gifted Education

Using a whole school approach

Wendy Robinson and Jim Campbell



First published 2010 by Routledge

270 Madison Avenue, New York, NY 10016

2 Park Square, Milton Park, Abingdon, Oxon, OX14 4RN

Simultaneously published in the USA and Canada by Routledge

Routledge is an imprint of the Taylor & Francis Group, an informa business

This edition published in the Taylor & Francis e-Library, 2010.

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storage or retrieval system, without permission in writing from

the publishers. British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

Robinson, Wendy.

Effective teaching in gifted education: using a whole-school approach / Wendy Robinson and Jim Campbell.

Library of Congress Cataloging-in-Publication Data

p. cm.

Includes bibliographical references and index.

I Gifted children—Education. 2. Teachers of gifted children. I.

Campbell, Jim. II. Title. LC3993+ 371.95'6—dc22

2009039115

ISBN 0-203-85506-X Master e-book ISBN

ISBN10: 0-415-49345-5 (hbk)

ISBN10: 0-415-49346-3 (pbk) ISBN10: 0-203-85506-X (ebk)

ISBN13: 978-0-415-49345-1 (hbk) ISBN13: 978-0-415-49346-8 (pbk)

ISBN 13: 978-0-203-85506-5 (ebk)

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Preface

In writing this book we have attempted to achieve five aims.

First, the education of students identified as gifted and talented, let alone the identification process itself, is highly controversial: it is seen variously as elitist, divisive and educationally exclusive, or as economically, socially and educationally inequitable. Moreover, much that passes for research in this field, with notable exceptions, is advocacy and evangelism masquerading as research. Although debate and controversy are welcome, we adopted a semi-detached attitude to the controversy, attempting to capture what it was that schools and teachers were doing, whether or not it fitted into a particular approach to gifted and talented education or not.

Secondly, we wanted to bring into a more public domain the educational practices of some of England's secondary schools judged to be outstandingly effective at teaching gifted and talented students. Although there are several books from proponents of gifted education giving advice on teaching such students, there are almost none based on substantial empirical case studies. We have attempted to get inside the working of the schools through interviewing staff and students, and observing lessons. In each school case study we produced a report and negotiated with the school that it was an accurate and fair representation. Since not all teaching and learning occurs in a school setting, we developed two case studies evaluating out-of-school learning — an online learning group and a residential summer school. Again negotiated reports were established with the evaluators. In this way we hoped to produce narratives of practice that other schools and teachers could learn from.

Thirdly, we attempted to place the practice of the schools within a theoretical and policy framework. Where, as was the case in all schools, there were contradictions to, or disagreements about, contemporary theory and policy on gifted education, we have drawn particular attention to them, in the hope that theorists and policy makers might adjust their ideas. Practice, especially in leading-edge schools such as the ones reported in this book, should feed into theory and shape policy.

Fourthly, a major pre-occupation of this book is the way school values feed into classroom practice. We started to develop the case studies with a simple three-

level model of school effectiveness, derived from the largely statistical models in the multi-level modelling field, though our studies were qualitative in method. This meant that we approached each school looking for interactions between the school management/leadership level, the teacher/classroom level, and the level of the individual student. As a consequence, it became clear to us that current conceptions about pedagogy were unnecessarily restricted to the classroom – to the teacher and the students. Yet all the teachers, and perhaps most importantly the students, argued that whole school values, or the school ethos, as most of them put it, shaped and influenced classroom relationships, and the teaching and learning that arose from them. Effective teaching and learning therefore has very important lessons for school management as well as teachers.

Finally, we attempted to draw some ideas from across the different schools and other settings that might influence the way other teachers might think about teaching gifted and talented students. The schools and settings were all state-maintained schools but were varied in size, age-range, context, organisation and student composition. There were two single-sex grammar schools, one multi-ethnic girls comprehensive school serving an extremely deprived estate, a rural comprehensive, an urban/industrial technology college, and a sixth form college in a university town; and the two wider schooling settings. Nevertheless, there were some similar themes and ideas that emerged from a consideration of their specific cases.

Structure of the book

The book is in three parts:

PART ONE: Policy, theory and practice in gifted and talented education Chapters 1 and 2

PART TWO: The case studies

Chapters 3–10

PART THREE: Conclusion

Chapter 11

The research reported here was carried out while we were members of the research team at the National Academy for Gifted Youth (NAGTY), based at the University of Warwick. The data were collected between 2004–2007. We wish to express our gratitude to erstwhile colleagues – university staff, school teachers and students – who discussed the work in progress with us and helped us explore some of the ideas in this book.

Professor Wendy Robinson, University of Exeter Professor Jim Campbell, University of Warwick

Acknowledgements

First of all, we wish to express our gratitude to the teachers and students whose ideas and experiences form the substance of this book. We estimate that some 40 teachers and 90 students agreed to take part in our interviews, and although we are unable to identify them, we place on record our thanks to them. Obviously without their participation the book would not have been possible.

The research reported here was part of a larger research programme at the National Academy for Gifted and Talented Youth, based at the University of Warwick between 2002 and 2007. We would like to express our gratitude to members of the research team and associated researchers for their constructively critical attitude to this project.

In particular we would like to acknowledge specific contributors to the evidence base in this book: Dr Sarah Dauncey, Director of the Rural Learning Project in Cumbria, formerly tutor in English, University of Warwick, for material on which Chapter 9 is based; Dr Stephen Cullen, Dr Mairi Ann Cullen and Professor Geoff Lindsay of the Centre for Educational Development, Appraisal and Research, University of Warwick, for material on which Chapter 10 is based; Dr Ruth Hewston, Lecturer in Education, University of Worcester, formerly Senior Research Fellow, NAGTY for fieldwork in schools; Tracey Irish, Member of the Royal Shakespeare Company's Education Unit, formerly PhD student, University of Warwick for fieldwork in schools; and Laura Mazzoli, PhD student, University of Warwick, formerly Senior Research Fellow, NAGTY for fieldwork in schools.

Chapter 2 is based on the 2007 article 'Personalised learning: ambiguities in theory and practice' by R. J. Campbell, W. Robinson, J. Neelands, R. Hewston and L. Mazzoli that was originally published in the *British Journal of Educational Studies*, 55 (2): 135–154. We are grateful to the editor and publisher for permission to draw upon it. Chapters 1, 3, 4, 5 and 6 are based on material originally written by us and research team members and published in a series of occasional papers while we were at NAGTY. We are grateful to the University of Warwick for permission to draw upon these papers.

Abbreviations

AfL Assessment for Learning AST Advanced Skills Teacher

CPD Continuing Professional Development

Department for Children Schools and Families **DCSF**

DES Department of Education and Science

DfEE Department for Education and Employment

DfES Department for Education and Skills

EiC. Excellence in Cities

Economic and Social Research Council **ESRC**

FE Further Education FSM Free School Meals FTE Full-Time Equivalent

GCSE General Certificate of Secondary Education **GNVO** General National Vocational Qualification

HE Higher Education

HEL Higher Education Institution HMI Her Majesty's Inspectorate HoD

Head of Department

ICT Information Communications Technology

ILP Individual Learning Plan ΙQ Intelligence Quotient

ISSP Independent State School Partnership

ITT Initial Teacher Training

KS Key Stage LA Local Authority

Learning and Skills Council LSC

NACE National Association for Able Children in Education NAGTY National Academy for Gifted and Talented Youth

National Curriculum NC

NCSL National College for School Leadership

NFER National Foundation for Educational Research

Office for Standards in Education OFSTED

| PGCE | Postgraduate Certificate in Education |
|-------|--|
| PSHE | Personal Social and Health Education |
| SATs | Standard Assessment Tests |
| SCITT | School Centred Initial Teacher Training |
| SEN | Special Educational Needs |
| SMT | Senior Management Team |
| TLRP | Teaching and Learning Research Programme |
| YG&T | Young Gifted and Talented |

Policy, theory and practice in gifted and talented education

Gifted and talented education in England 1999-2009

Policy framework and aims

This chapter analyses the development since 1999 of education policy in England designed to improve the education of students identified as gifted and talented. We argue that the policy formation, which includes a strong and distinctive emphasis on embedding the policy in mainstream schools, can be seen as part of the New Labour government's concerns for both social equity and increased performativity. We offer a critique of what has been called the 'English model' of provision and how this has begun to be embedded in the mainstream system. We also examine problems around the conceptualisation and assessment of giftedness and talent in the English model and question its efficacy, impact and success. The chapter is in five parts. First, the broader policy background and social context which led to a deliberate focus on gifted and talented provision in the closing years of the twentieth century is discussed. Secondly, there is a detailed elaboration of the development of the policy framework over the last decade 1999–2009. Thirdly, the 'English' model is examined for its rationale and values as well as its impact in practice. Fourthly, the nature of giftedness and its assessment in the English model is problematised. Finally, further questions are raised around unresolved problems for teachers and other stakeholders.

The policy framework

The English education system's response to the educational needs of gifted pupils has been characterised by a long trend, stretching back at least to 1978, of low expectations at the classroom and school level (DES 1978; HMI 1992; OFSTED 2003) and, until fairly recently, absence of strategic policy at the national level (Eyre 1997; House of Commons 1999). This trend was alleged to be reinforced by unenthusiastic attitudes in the teaching profession, either on the grounds that teachers lacked confidence about how to challenge such students through their teaching (HMI 1992: para. 3), or that meeting their educational needs had lower priority than managing the behaviour and learning of other pupils in busy and challenging classrooms, or both (Eyre 1997: vi; House of Commons 1999: paras 43 and 50). In 2003, gifted and talented

students' progress in secondary schools had been judged by inspectors from the English government's Office for Standards in Education (OFSTED) to be good or better in fewer than half the schools and unsatisfactory in one in 12, with common weaknesses being the identification of such students and the assessment of their progress (OFSTED 2003: 108). Inspectors had judged that, in general, practice, even at a fairly basic level, was unsatisfactory.

Consistently high quality provision across subjects for gifted and talented pupils remains the exception. Many schools need to make sure that schemes of work set out what is meant by a high level of challenge and to provide guidance on ways of enriching and extending work for higher attainers. While activities outside normal lessons are often stimulating ... they do not generally link well with mainstream work.

(OFSTED 2003: 126)

Ideology played a part also, in that making special provision for gifted and talented pupils had commonly been constructed as elitist in academic discourse (e.g. Bourdieu 1998; Ball, et al. 1996), reinforcing the advantages that already advantaged professional classes might gain for their offspring, in the competition for admission to high status universities (Power, et al. 2003).

To these problems there was added a complex set of distinctively English social pressures. Parental anxiety about provision in mainstream schools led to high demand from the professional classes for private schooling, as Adonis and Pollard (1998) argue (see also Fox 1984), and, where it was available, for selective secondary schooling. Parental anxiety appeared to hold firm, even when it became clear that the advantages to the middle class, in terms of educational attainment, from attending a selective school were dubious or small, especially for the most able pupils (Crook, *et al.* 1999; Schagen and Schagen 2001).

Schagen and Schagen's review for the National Foundation for Educational Research (NFER) reported that selection effect varied by the level of ability of pupils. They found:

The most able pupils perform just as well, if not better, in comprehensive schools. The least able pupils perform slightly better in secondary modern schools. The impact of different school types is most strongly felt in the overlapping ability range (average to above-average). It seems therefore that selective systems obtain good results, particularly at Keystage 3, because the grammar schools are remarkably successful in enhancing the performance of their *least* able pupils – the ones who gain their grammar school places by a relatively narrow margin.

(Schagen and Schagen 2001: 8)

Even when the state had provided financial support for differentiated provision through specially targeted schemes, it had been disproportionately accessed by

those with high levels of social and intellectual capital, mainly the professional classes and those in genteel poverty, according to Edwards, *et al.* (1989).

From this context of policy drift and socially skewed parental ambition, a step change in policy came about towards the end of the twentieth century, driven primarily by the New Labour government's agenda for social inclusion and for improved performance in the educational system. Quasi-official interest had been reflected in a survey of provision by Her Majesty's Inspectorate (HMI), and a review of research for OFSTED (HMI 1992; Freeman 1998). More officially, in direct policy terms, the government's initiative to improve the quality of education in urban areas, the Excellence in Cities (EiC) initiative (DfES 2002), included specific targeting of gifted and talented pupils. Moreover, in a Green Paper, *Schools: Building on Success*, the Department for Education and Skills (DfES) committed itself to including support for gifted and talented students in all its school education strategies (DfES 2001).

The platform for this policy change had been constructed in a House of Commons Select Committee (1999) which had examined issues associated with 'highly able children', and had made a coherent and integrated set of recommendations about policy and practice. It recommended among other things, that:

- Funding to support the education of gifted children should be incorporated into the generic funding of schools.
- All national initiatives should incorporate a gifted and talented component, clearly specified.
- OFSTED should include data on provision for gifted and talented in its inspection of schools and of LEAs, and should conduct a second survey of provision, following up its survey in 1992.
- Initial teacher training should be required to give higher priority to the education of gifted and talented pupils.
- All schools should be required to appoint a named person as the school's coordinator for gifted and talented education.

Enrichment and extension of the normal curriculum, partnerships between schools and other agencies such as universities, out-of-school provision, and improved use of information and communications technologies (ICT) were also recommended to improve the effectiveness of teaching and learning.

The Select Committee thus laid the foundations of a clear policy, national in scope, with pupil entitlement at its heart, and embedded in mainstream schooling. The establishment of a National Academy for Gifted and Talented Youth (NAGTY) at the University of Warwick in 2002 provided the organisational mechanism for delivering the policy into the system, focusing on secondary schools. Its distinctive ambition was to integrate three dimensions of its work – services for students, services for teachers and research – into a unified academy. Its work was supported by the government through an expanded Gifted and

Talented Unit at the DfES. By 2007 some 140,000 secondary-aged students had been identified as meeting the criteria for membership of the Academy.

The publication in 2005 of the government's White Paper, Higher Standards. Better Schools for All: More Choice for Parents and Pupils, set out a clear expectation that all pupils, including those identified as 'gifted and talented' should have the most appropriate 'personalised' support to reach the limits of their capabilities (DfES 2005). For gifted and talented pupils this meant: stretch and challenge in every classroom and in every school; and opportunities to further their particular abilities outside school. The 2007 Children's Plan built on this commitment and set out a range of priorities for schools that continue to shape policy (DCSF 2007). These included:

- improving the identification of gifted and talented learners, especially underachievers and those from disadvantaged backgrounds;
- ensuring that all schools have access to trained leading teachers for gifted and talented learners;
- ensuring that gifted and talented learners make at least two levels of progress in each Key Stage, especially those who come from disadvantaged backgrounds.

In 2007, the national programme for gifted and talented education, NpGATE, was transferred from Warwick University to a not-for-profit company, CfBT, whose responsibility was to manage the programme, brokering its delivery to other organisations. CfBT was also responsible for managing the programme's expansion to all schools catering for 4 to 19-year-olds, not just secondary schools. CfBT managed the Young Gifted and Talented (YG&T) learner academy and provided support for educators, brokering provision through its online portal. By 2008, CfBT reported that over 700,000 students were identified as gifted and talented, with a target of one million students by 2010.

As the transfer from Warwick to CfBT was occurring, three mechanisms were being put in place to help in the implementation of policy. These were:

- The development of Quality Standards for gifted and talented education, a set of self-evaluation criteria for teachers, schools and Local Authorities (LAs) to identify their strengths and weaknesses in gifted provision.
- The establishment of a national register of gifted and talented students, whereby all schools were required to identify their gifted students in their annual school census, with the intention that their progress could be tracked and monitored.
- The establishment of Excellence Hubs, regional networks of professionals, intended to foment interest and development activities in gifted and talented education in partnership with universities and with a focus on learners from disadvantaged backgrounds.

In 2007 the DCSF set up the National Strategies initiative, designed to improve the quality of learning and teaching in schools, through focused professional development programmes for teachers in online learning communities. Among a number of priority national strategies was inclusion and within this umbrella lay a cross-phase initiative for gifted and talented provision with the aim to improve the attainment, aspirations, motivation and self-esteem of gifted and talented pupils, especially those who are at risk of not fulfilling their potential. Working through LAs, school coordinators and leading teachers for gifted and talented education, the three quality standards referred to earlier, i.e. LA, institutional and classroom level standards were supported. A bank of resources and examples of good practice to support gifted and talented education in mainstream provision, as well as a range of generic, primary-focused, secondary-focused and subject-specific e-learning modules for the training of leading teachers was also made available.

In the summer of 2009 the government published, as part of developing the Children's Plan vision, a new White Paper, Your Child. Your Schools. Our Future: Building a 21st Century Schools System (DCSF 2009). In it there was a strong focus on formalised 'Pupil and Parent Guarantees' for high quality, personalised learning support, increased accountability for schools and a greater emphasis on supporting schools to narrow the performance gap between pupils from advantaged and disadvantaged backgrounds. Unlike previous White Papers published by the Labour government in the last decade, this one made very little explicit reference to provision for gifted and talented pupils, other than a requirement in the Pupil and Parent Guarantee that schools would send written confirmation of the extra challenge and support that pupils identified as gifted and talented would receive by September 2010 (DCSF 2009: 35, 42). This apparent shift in focus also reflected a new direction in national policy development for gifted and talented provision which, according to John Stannard, National Champion for Gifted and Talented Learners, 'brings a greater emphasis on the responsibilities of schools to provide effectively for their G&T learners' (Stannard 2009). The CfBT contract for the YG&T learner academy expired and was replaced with a catalogue of opportunities available to learners across LAs, regions and nationally. Moving from a highly centralised policy through national agencies such as NAGTY and CfBT, the brokering of provision, and accountability for ensuring appropriate identification and provision for individual pupils, became much more school-based with regional support. However democratically attractive it appears, the potential weakness of this model is that large-scale systemic change might not be achievable and much depends on the individual efficacy and commitment of the schools. While additional support and resource for disadvantaged young people were built into the policy, these issues continue to be a problem.

The 'English' model

In contrast with some other international developments, the English national policy is unusual in its explicit commitment to being embedded in the main-stream school system, a feature driven by the generic funding proposed by the Select Committee referred to earlier. The rationale and values underlying the so-called 'English' model were outlined by the director of NAGTY as follows:

Traditionally gifted education has been seen as divorced from the general education system, yet if a country's education system seeks to provide appropriate education for all its children, then the education of the most able (gifted) should be seen as just one part of a larger whole. This in itself should provide a compelling case for a nationally coherent and integrated approach to the education of the gifted. However there are reasons that transcend education policy that suggest that a country would be well-advised to give gifted education a more central location. Today's gifted pupils are tomorrow's social, intellectual, economic and cultural leaders and their development cannot be left to chance. Where it is left to chance, evidence indicates that educational progress is not so much a question of intellectual merit but rather a question of affluence, with the most affluent receiving the best education and therefore achieving most highly.

(cited in Campbell, et al. 2004: 4-5)

Deconstructed, this statement resolves itself into a three-part rationale: an *educational* policy, about the mainstream system catering for the needs of all pupils; an *economic* argument, about realising potential to drive up performance in the knowledge economy; and a commitment to *equity*, with an ambition to counter those social and economic factors shown to have had a restrictive influence on educational achievement. It challenged the idea that giftedness was unequally distributed among social groupings, stressing the need to identify giftedness in social groups hitherto under-represented in the gifted population. In this sense it was palpably part of the social inclusion agenda of New Labour.

The challenge implicit in this agenda was substantial, since social bias in high educational achievement reflects a particularly long-standing English disease, as large-scale longitudinal studies in England have demonstrated (Douglas 1964; Halsey, *et al.* 1980).

A continued commitment to the mainstreaming of gifted and talented education was a central part of the function and outreach of the National Strategies which were explicitly designed 'to improve challenge and opportunities in the classroom so that the special gifts, abilities and talents of all pupils are revealed and nurtured, and pupils are able to fulfil their potential' (National Strategies 2008). This was further endorsed in the policy shifts captured by the 2009 White Paper, with an explicit expectation that schools take responsibility for, and be accountable to, their gifted and talented learners.

The model in practice

In practice, the emerging policy was consonant with the English government's 'personalisation' policy in public services generally (Leadbeater 2004; DfES 2004). How it was designed to reform practice in provision for the education of gifted and talented students was elaborated by Eyre (Campbell, *et al.* 2004). This had five elements: integration; quality in the basic system; diversity; equality of opportunity; and globalism.

Integration

The approach used to deliver gifted education in England was intended to be integrated in two ways: gifted education was to be an integral part of general education policy; and the approach used would integrate pupils with their peers as much as is possible, rather than placing gifted education outside the general education structure. When specialist provision was shown to be needed then it was to be made available, and lack of availability in a particular school should not be a barrier to the progress of the individual.

High quality basic system

The core of gifted education was intended to be delivered through day-to-day classroom provision. Gifted children and students would spend most of their time with the regular school group, especially in the 5–11 age range. This meant that schools should routinely plan to meet the needs of their most able pupils. School flexibility for the gifted should include the ability to progress more rapidly than others in the peer group, including taking external examinations early. As the child became older, and more advanced in some areas, then the mix between normal class, cross-school and out-of-school provision would change. By 14–19 years the emphasis on personal pathways to meet personal needs was intended to pervade the whole education system. The school was envisaged as working in conjunction with a range of other providers to ensure optimum match between needs and opportunities. A major benefit claimed for this approach was its potential for raising systemic performance, sometimes referred to as the 'rising tide raises all ships' syndrome.

Diversity of provision

The English model for gifted education attempted to build on a general recognition of the need for diversity: diversity in schools, with the system developing organisationally distinctive characteristics to cater for differences in aptitude and interest; personalised learning pathways, through which students are enabled to give voice to their individual needs and have them catered for, eventually beginning to shape and influence their own pathways; wider schooling,

with the host school being only part provider and seeking to broker learning opportunities from other partners. This final characteristic, the brokering of learning according to the identification of learning needs by both learners and providers, is at the deep end of personalisation as Leadbeater (2004) sees it, with users of the education system treated as 'co-producers' rather than consumers. (See Campbell, et al. 2007b for a fuller critical discussion of personalised learning for gifted students.)

Equality, social justice, meritocracy

The model attempted to balance equality and meritocracy. While it was concerned with meritocracy, it recognised that the creation of better opportunities would not in itself ensure that gifted children from under-represented groups rose through the system. In the English model, special attention was to be paid to those from under-represented groups.

A global perspective for the twenty-first century

A major reason for a dedicated educational focus on gifted and talented pupils was their potential to play a leading role in their adult lives. To be successful in a globalised world, it was argued that education systems would need to produce leaders who could compete with the most able counterparts globally.

Evidence of impact

By 2007 there was some independent evidence (Campbell 2007) about the extent of implementation of the policy. At the national level, in a comparative review of gifted education in 21 countries in Europe, funded by the German government, the UK was judged to be among the three countries in Europe where most progress in gifted education had occurred since 2003 (Monks and Pfluger 2005).

At the level of school headteachers/principals, a survey, commissioned in 2007 by NAGTY from EDComs asked school leaders whether, since the establishment of NAGTY in 2002, provision for gifted and talented education in their schools had improved or deteriorated. The findings were that 46 per cent of school leaders reported improvement and none reported significant deterioration. The same survey asked heads whether they had found the Institutional Quality Standards helpful. Most leaders either had not used the Standards or had not seen them (63 per cent). Slightly more of those who had seen them generally thought them to be helpful (19 per cent), rather than unhelpful (13 per cent).

At the level of the classroom teacher, an investigation commissioned in 2007 from Ipsos MORI using a nationally representative sample of English primary and secondary teachers reported on perceived improvement in their effectiveness of teaching gifted and talented students. Three in five (60 per cent) of teachers felt their teaching of gifted and talented students was more effective than it had been three years previously. The same survey asked about the impact of NAGTY on their teaching. Just one in five teachers (21 per cent) felt that NAGTY had affected their teaching of gifted and talented students. Three-quarters did not feel that NAGTY had affected them much or at all.

In September 2008 the EPPI-Centre published A Systematic Review of Interventions Aimed at Improving the Educational Achievement of Pupils Identified as Gifted and Talented (Bailey, et al. 2008). This report endorsed the policy of mainstream provision, personalisation for gifted and talented pupils, and argued that the Quality Standards were impacting positively on provision.

These findings, which provide a somewhat patchy picture at different levels in the system seven years on from the establishment of the national programme, suggested some modest progress in policy implementation.

Problematising the nature of giftedness and its assessment in the English model

The nature of 'giftedness', and indeed the language used to theorise, and even define it, is highly contested (House of Commons 1999). In addition to theoretical arguments about the extent of heritability and measurement of ability, there are somewhat more practical debates about the extent of giftedness in the population, and therefore the size of the group on which education policy and practice should focus. In respect of the last of these, the English model took its brief largely from the 1999 Select Committee report, which argued that about 5 per cent of the school population might be considered 'very able', but included a view that 2 per cent might be thought of as 'exceptionally able'. The former threshold would involve some 680,000 members of the school age population, the latter some 250,000, according to the Select Committee, although actual decisions about numbers involved would soon be devolved to schools.

As for the nature of giftedness, the English model adopted a modernised but highly contestable theory of multiple intelligences, rather than a generic model reflected in a single measured intelligence quotient (IQ). It invoked at different times the ideas of Cropley (1995), Freeman (1995), Gardner (1983; 1999), Krechevsky and Gardner (1990), Gagné (1994), Guilford (1950), Renzulli (1977), Sternberg (1985), and others. In Freeman's terms, the English model adopted 'identification by provision' rather than 'the medical model of diagnose and treat' (Freeman 1998).

There were two significant consequences of using these modern theories for policy and practice. First, they enabled the English model to justify the adoption of a broad conception of ability, so as to include not only cognitive ability but also 'creativity' and 'talent' in dance, drama, music and sport, and, perhaps more controversially, task effort and motivation in Renzulli's (1977) and Urban's (1990) models. Second, this conception of ability provided the

justification for multi-modal assessment of student ability rather than a unidimensional measurement of it. Until 2007, NAGTY identified the 'top 5 per cent' using an array of evidence, including test data, recommendations from teachers, parents and peers, portfolios of achievement, and other evidence. An important feature of this process was its emphasis on evidence of potential, as well as actual, achievement, where appropriate provision and support for students were made available. After 2007, CfBT, while including the NAGTY criteria, developed a significantly more flexible set of criteria, dominant among which was the DCSF definition of gifted and talented as pupils showing performance in at least one subject 'significantly above their year group'. At the same time as extending its reach downward into primary education, it broadened it so as to include all students that teachers judged met the DCSF definition. While this gave ownership of definition to the schools (and removed the burden of managing the identification process fairly from the national programme), it neglected the established evidence that teachers' judgements of students' ability are commonly found to be socially and ethnically biased (see a review of this aspect of research in Davis and Rimm 1998: 68–101).

As they were still contentious, the criteria for the identification of the top 5 per cent nationally were reviewed by the DCSF, leaving all schools and colleges to identify their own gifted and talented learners and to determine the size of the population, taking into account local context and policy.

Unresolved problems for teachers and other professionals

There are three, inter-related barriers to more effective implementation of the national policy on gifted and talented education. These are: the nature of mainstreaming; the conceptions of giftedness and the criteria for identification; and social equity issues.

Mainstreaming

The English model presented itself as radical in that it was systemic; it was embedded in the national system and therefore dependent for effective implementation on the involvement of the whole education profession. This might be thought to have been both its strength and its Achilles heel. Some levers for change were installed in the system; most notably the requirement to appoint school-based coordinators for gifted and talented education, later called 'leading teachers', in every school, and the possibility that OFSTED would inspect the quality of gifted and talented education in schools. There was pressure on initial teacher training providers to include training on teaching gifted and talented pupils, and for this aspect to be part of the inspection of teacher training. Also, the national Primary Strategy encouraged schools to consider the needs of gifted and talented pupils (DfES 2003).

These levers are relatively weak, however, when set against a professional culture which has been construed as antagonistic or indifferent. The EiC initiative appears to have been effective in identifying and supporting gifted and talented pupils, partly because of the high level of targeted funding (£208.1 million in 1990–2001 and £303.1 million in 2001–2002, for just under 1.5 million pupils involved), but that initiative was closed down as a separately funded activity. Even under EiC it was difficult to demonstrate 'measurable impact in terms of attainment' (DfES 2002: 35).

By contrast, the use of school-based coordinators to deliver substantial elements of national policy has been resorted to by the government when it seeks a generalised, low-cost, implementation strategy, as Campbell (2004) has argued. A survey (Hewston, et al. 2005) of school-based gifted and talented coordinators in secondary schools showed that most had two, and some five, other coordination/management roles, in addition to the responsibility for gifted and talented students. Not surprisingly, they identified lack of time and lack of support as obstacles to effective implementation of the role.

A more direct, statutory, element in the inspection of schools and teacher training might have been effective in changing practice in gifted education, but the proposal to make this a statutory element in school inspections was not realised. Under the current arrangements, therefore, the professional culture in the schools is likely to remain the strongest driver on priorities at the school level.

The national programme had a strong focus on professional development of teachers, but there were two limitations on its effectiveness in this respect. The relationship of the schools to the programmes was a voluntary one, so that NAGTY and CfBT were initially engaging with those schools and teachers where there was little cultural resistance. The second problem was that, again from the point of view of teachers' professional development, the competition for teacher development time in other areas of school improvement was fierce. Both factors suggest that the promoters of the programmes were not adequately empowered to work with those schools and teachers opposed to developing effective teaching of gifted students, or those for whom it had relatively low priority. Preaching to the converted is gratifying, but does not by itself lead more souls to salvation.

The national policy had challenged the notion of the school as the single education provider of student learning. The wider schooling element assumed a brokering role for the school so as to tap into expertise that matched the learning needs of students. This wider schooling concept also includes learning by individual students through sources such as the Internet, online forums, summer schools and outreach activities. To be effective there would have to be a major shift in conceptions of pedagogy, with a strong commitment to independent learning and an active role for student voice to exercise choice in content, source, pace and direction of learning. The role of the school as brokering this learning is clear in relation to formally provided resources, such

as summer schools or online forums or outreach activities, but independent learning from informally acquired knowledge is different, implying a shift from visible to invisible pedagogies (Bernstein 1973), with control over pace, direction and even content of learning having to be ceded by the school to the student. This would be a palpable example of how the personalisation agenda for the public sector might be realised in teaching and learning. However, the extent to which the teaching profession in general is culturally or institutionally prepared for these two demands upon it is problematic. There was a major task here for the professional development side of the National Academy, but changing professional attitudes towards a more personalised learning had hardly begun before responsibility was transferred to CfBT. All these problems, therefore, remained for the arrangements for the national programme as managed by CfBT. The adoption of Quality Standards and engagement in continuing professional development (CPD) are voluntary, and the requirement upon schools to compile a school register runs the risk of being treated tokenistically in schools.

Social equity

With regard to social equity there are also some problematic aspects and three are particularly salient. The first is that the professional and middle-class elite groups have been shown in the past to manipulate the schooling system to increase the chances of their children benefiting disproportionately from perceived advantages on offer. The study by Power, et al. (2003), involving analysis of the Oxford Mobility Study combined with interviews with a large cohort of 300 'academically promising' middle-class students, is only the most recent of a long line of studies demonstrating the power of cultural capital in accessing public service benefits. Analysis of NAGTY's student membership geodemographic profile (Campbell, et al. 2007a) suggests that this syndrome was at work in the field of gifted and talented education also, with 44 per cent of those identified as gifted and talented coming from the highest socio-economic group, which formed only 26 per cent of the secondary school population. The lowest socio-economic grouping, some 23 per cent of the school population, comprised 8 per cent of the NAGTY membership. Moreover, during the three years in which the profile was analysed this latter proportion slightly reduced, suggesting little effect in increasing inclusivity.

Power and her colleagues make a further point, about the market responsiveness of the prestigious schools in the independent sector (the so-called 'public' schools). They show how, as demand for places grew, the elite schools in the sector began to specialise, creating a market niche for themselves by providing the assurance of high academic standards reflected in strong performance in national examinations and admission to top universities. They were able to do this by resisting the market pressure to increase in size, and instead creating a strong academic selection process for entry to them.

Between 1951 and 1981, private sector numbers remained fairly steady ... Its market share then rose over the next ten years ... to 8.1% of 11–15 year olds, and has remained since at roughly that level. Protected by their charitable status from the full force of market pressures, popular private schools appear to have chosen not to expand but to become more selective, which is a rational strategy for schools marketing academic excellence.

(Power, et al. 2003: 18)

It must be assumed that these schools will continue to operate in this niche, and it is difficult to see how the English model of gifted and talented education can enable mainstream schools to compete against the track record and privilege of these schools in attracting and catering for disproportionate numbers of gifted and talented students. This is not an argument against mainstreaming so much as a recognition of the limitations that socially exclusive influences may place upon the implementation of the English model. It is possible to overstate these limitations. After all, it remains the case that the most prestigious independent schools are too expensive for the majority of the professional classes, being mainly restricted to what Power, *et al.* call the super elite.

Perhaps a more important concern is the mismatch that emerged in implementation of the mainstreaming policy. One of the contradictions in the practice was that despite claims for the effectiveness of mainstreaming, the heavy emphasis in the national programmes and in national policy-making (e.g. the 2007 White Paper) was on out-of-school provision, especially the highly effective university-based summer schools, with a relative neglect of the need to articulate effective pedagogy in mainstream schools and classrooms.

Conceptions of giftedness and talent

The social equity agenda may have been served by the conception of giftedness adopted in the national programme, as indicated above. This allowed for a broad, and to some extent flexible, recruitment process linking potential with opportunity to develop. However, and perversely, this may have run the risk of exacerbating the problem, since middle-class parents would be enabled through this procedure to make a case for their children when more objective test data might have excluded them. This is similar to what happened when intelligence testing was abandoned in most local authorities in the 1960s, and access to selective tracks in comprehensive schools came to rely more on teacher judgement. The evidence then showed that as testing was abandoned, children of middle-class parents increased their representation in selective tracks to the disadvantage of children from the working class (Ford 1969; Floud and Halsey 1957).

What was true about social bias in the identification of academic ability was magnified when students were identified on the basis of creative talent – ability in music, dance and drama. As Neelands, *et al.* (2006) showed, students

from the higher social classes were even more over-represented in these areas of creative performance than was the case in respect of academic achievement, probably because, as Neelands, *et al.* argue, most tuition in these fields has to be paid for privately.

A more effective strategy might be the extension of the targeted initiative focused on schools with relevant postcodes, in which it is in the schools' financial interest to identify and support the development of gifted and talented students. This would require funding levels that only government, charitable foundations or business could provide. 'Goal', a small-scale project at Warwick University, was run along these lines. In July 2008, the government announced a voucher scheme allocating £400 per annum over four years per bright student from disadvantaged backgrounds (i.e. on free school meals (FSM)) to spend on out-of-school learning. On the face of it, this would provide highly targeted funding, though the FSM programme is a blunderbuss rather than a highprecision rifle. However, £400 would not cover a quarter of the true cost of a residential summer school. The gifted and talented strand of the government's City Challenge programme was targeted at three areas of social disadvantage - London, the Black Country, and Greater Manchester - and ran a three-year, £15-million pilot project aimed at narrowing the achievement gaps between advantaged and disadvantaged gifted and talented learners by improving the achievement of the disadvantaged and improving progression to the most academically competitive universities.

All the above factors are daunting, though a counteracting influence may emerge from support among the elite universities for widening participation and fair access. This might lead to increased interest in schools in disadvantaged areas in identifying and supporting their able students. On present evidence, however, the widening participation has not proved effective. Moreover, according to Macaro and Wingate (2004), the problem lies not in the structures for access so much as in the preparedness and self-confidence of working-class students. Citing McCrum, et al. (2003: 468), they argue that that the more general factor in state school students' admission to Oxford resides 'not in a lack of (the university's) willingness to admit state school applicants' but in 'the apparently intractable problem of low state school application rate'. This might be thought defensive special pleading by Oxbridge representatives, were it not the case that it is supported by the interpretation in a Sutton Trust research paper that overwhelmingly teachers and college principals thought that 'students from families with low socio-economic status lacked confidence to apply to Oxbridge' (Keys, et al. 2002). It is not known whether the somewhat narrow focus on admission to Oxford and Cambridge might be leading to an unduly pessimistic picture (as well as relatively small samples) of workingclass ambition, compared to the picture that might emerge from the data on a wider group of high-status universities, several of which are located in urban areas close to inner-city locations, unlike Oxford and Cambridge.

There are two particular issues that need resolution if the programme is to

have a widespread impact. The first is that the promoters of gifted and talented education will need to stop constructing reluctance, resistance, lack of competence or low priority for gifted and talented programmes on the part of teachers as reprehensible. Such attitudes may equally be constructed as highly professional, with teachers exercising their judgement about the salience of the programme to their students' needs. Some may draw on highly principled arguments such as those by White (2006) in England and Borland (2005) in America. The former convincingly traced the gifted and talented programmes, and the conceptions of giftedness underlying them, to the eugenicist movements of early last century. The relatively modest achievements in the national programmes in articulating effective pedagogies for gifted students in mainstream settings, compared to wider schooling contexts, simply adds to the sense of, in Ryan's (1971) phrase, 'blaming the victims' of ineffectual national programmes. The national agenda needs to treat professional resistance or reservations with some respect.

A second significant part of the problem for teachers has been the way officially sponsored definitions of giftedness, let alone talent, have altered, mutating from the quantitative models in the Select Committee (the top 2 per cent and 5 per cent) through the range of criteria used by NAGTY, the 'up to 10 per cent' of an individual school's population in the EiC programme, the national register's use of performance on national tests at age 11, to the loose DCSF notion of anyone performing in even one subject at a 'significantly' (the term is not defined further) higher level than their year group, or with the 'potential' (how this is identified is also not defined further) to do so. This definitional drift is strengthened by the insistence in the DCSF that giftedness is equally distributed among different social groups, without the provision of any evidence to support it. However admirably inclusive these widening portals to giftedness may appear, with such variety of definition, some of it mutually conflicting, teachers might long for the apparent certainty that an IQ used to give.

In an age of multiple intelligences, however, tentativeness in identification is inevitable. The best advice is for teachers in a school to agree on a range of indicators for identifying giftedness, adopt it as the basis for school policy, and be on the lookout for students who do not meet their criteria presently but who might do so in the near future. However, the consequence of following such advice will be significant diversity in meaning becoming embedded in the system, and a weakening of the framing of the concept of giftedness to the point where it risks losing most of its distinctive character.

Conclusion

To identify problems and challenges is not to be pessimistic or deterministic. The purpose of this chapter is to analyse the aims and nature of the national policy in England, a policy that is highly distinctive, very ambitious and socially inclusive, and to attempt to see where further action might be necessary

to support it. The further action is in effect an extension of the policy initiative, but it would take account of some of the known factors, educational and social, that might hinder, or prove resistant to, its effective implementation. The major failure of the policy formation and implementation so far might be thought to be a lack of sociological insight, leading to neglect of three elements in the social contexts of the policy formation and implementation. These are under-estimation of the strength, and the valuing, of the professional culture in mediating educational change; the strength of those parents and groups with high levels of cultural capital to manipulate educational change to their own children's advantage; and the power of elite schools, whether independent or state-maintained, to suck many of the most able students out of the mainstream schools. None of these is novel, but their apparent neglect implies a degree of naiveté in policy makers and programme promoters alike.

Personalised learning

Theory and practice

In this chapter, we trace the ideas about 'personalised' learning and consider some of the implications of those ideas for educational practice. We have chosen this approach for three reasons. Personalised education has attracted considerable interest across the world; it has found its way into research frameworks on teaching and learning; and it was influential as an idea in the case study schools that form the bulk of this book. Even more significantly, perhaps, personalised approaches to learning are likely to be particularly salient for students identified as gifted and talented.

We have deliberately not chosen to review the literature on the education of gifted students. This is because there are in existence recent reviews of theory and practice in the UK and the USA especially. These either cover specific practice, such as that by Bailey, et al. (2008), where the influence of Quality Standards on the English system is a strong focus, or more general research findings on curricular organisation and teaching, such as those by Hewston, et al. (2005) for NAGTY and White, et al. (2003) for the NFER. There is also the comprehensive, user-friendly handbook by Davis and Rimm (1998) which primarily covers research in the USA, but is highly relevant to most systems.

We need to be careful about the term 'personalisation', which is used in public discourse in a promiscuous way and aerosoled onto a whole range of practices that have little in common with each other. It is possible these days to have personalised car registration plates, personalised bank accounts, personalised holidays and personalised beauty treatments. For this reason we have been careful critically to evaluate the theory behind personalised learning and to signal how it has informed practice in the case studies that follow. We trace its origins to an influential analysis of the future of public sector services.

Personalisation in the public services: theories and ambiguities

Personalisation is a contestable concept applied to the planning and delivery of public sector services in England. It was introduced into the policy arena following the publication of a paper from a think tank, Demos, by Leadbeater (2004). The concept is sometimes misunderstood as the individualisation of services, but personalisation is a far more socially oriented idea. Leadbeater argues that personalisation could operate at five increasingly deeply structured levels. These are:

- 1 providing more customer friendly services;
- 2 giving people more say in navigating their way through services;
- 3 giving users more say over how money is spent;
- 4 users becoming co-designers and co-producers of services;
- 5 self-organisation by individuals working with the support and advisory systems provided by professionals.

Leadbeater further argues that personalisation could become as powerful an organising logic for re-shaping public sector services in the coming decade as privatisation had been in the 1980s and 1990s.

To illustrate the concept, he contrasted explanations for the 23 per cent decline in deaths from heart disease in England between 1997 and 2002. On the one hand, medical professionals had improved the quality of cardiac services, and introduced statins and other technical improvements; on the other, citizens had adopted changes to their lifestyle – giving up smoking, taking exercise, eating more healthy food, etc. Leadbeater (2004: 16) contends that 'Contained in this single story are two very different accounts of how the public good is created'. The first emphasises the role of the state and professionals in providing more effective services so that 'the public good goes up the more effective the state becomes in solving society's problems for it'. The second account is that

the public good – fewer people dying young from heart attacks – comes from millions of people making loosely connected decisions in society to change the way they live, which collectively produces a significant improvement in the public good. In this model, the state does not act upon society; it does not provide a service. Instead, the state creates a platform or environment in which people take decisions about their lives in a different way. This is bottom-up, mass social innovation enabled by the state.

(Leadbeater 2004: 16)

Leadbeater argues that these two accounts may be constructed as complementary but they reflect very different assumptions about the role of users and professionals. The former assumes user-dependency, whereas in the latter users become co-producers of the good in question, having access to information and developing confidence to self-manage their health. The two approaches can contribute to the development of personalised public services but, he argued, the approach chosen will determine the form such personalisation takes: providing better access and some limited voice about services (shallow

personalisation); sustaining improvements in the existing systems; or a more disruptive innovation in which users become 'designers and paymasters' of services (deep personalisation).

The deepest level would mean:

self organisation: the public good emerging from within society, in part through the way that public policy shapes millions of individual decisions about how we exercise, eat, smoke, save for our pensions, read to our children, pay our taxes, and so on. Many of our biggest social challenges – reducing obesity and smoking, caring for people with chronic health conditions, promoting learning, creating safer communities – will only be met if we promote a mass social innovation within society: self organising capacity to meet demand, otherwise queues would just lengthen.

(Leadbeater 2004: 49)

For the argument in this chapter, deep personalisation is taken to mean either or both of the last two of Leadbeater's levels, and shallow personalisation the first three, the justification for this distinction being that the last two levels involve action by consumers, whereas the first three require merely that the state acts in a more efficient way to provide services to the consumer.

Under this model of deep personalisation, professionals become advisers and brokers of services, not providing the services themselves so much as helping clients generate pathways through the available range of provision that meets their particular needs. Leadbeater accepts that some public services (for example, emergency and accident treatment in hospitals, defence, police) do not lend themselves easily to the participative concept of personalisation. But deep personalisation would be particularly appropriate in services which are face to face (e.g. social services, non-emergency health), involve a long-term relationship (e.g. treatment of chronic illness), or depend on direct engagement between professionals and users (e.g. much formal schooling). He cites research showing that self-management by diabetes sufferers was associated with fewer crises and less hospital treatment than those not self-managing.

At this stage, two critical ambiguities emerge in Leadbeater's argument. The first is whether the principal advantage is to the individual (through the development of a more healthy lifestyle, for example) or to the state, through the consequential reduction of state funding for directly provided services, as illustrated in the diabetes example above. The second is whether, under deep personalisation, the assertion that the state ceases to provide direct services goes beyond rhetoric, since even in this model the state 'creates the platform', and funds the delivery of most of the professional services that become brokered and co-produced. Unless these activities are seen as merely transitional, they do not obviously reflect the bottom-up mass innovation supposed to characterise deep personalisation.

Personalisation and education

Leadbeater saw the application of personalisation to education as particularly appropriate, drawing upon the concept of a 'script' to envisage how it might work. Children would be enabled to devise

a greater repertoire of possible scripts for how their education would unfold. At core there would be a common script – the basic curriculum – but that script could branch out in many different ways, to have many different styles and endings. The foundation would be to encourage children, from an early age and across all backgrounds, to become more involved in making decisions about what they would like to learn and how. The more aware people are of what makes them want to learn, the more effective their learning is likely to be, since ... personalised learning allows individual interpretations of the goals and value of education.

(Leadbeater 2004: 68-69)

The aim of personalisation in learning is the promotion of self-realisation, with children constructed as active and responsible co-authors of their educational script. This would lead to students setting their own learning targets, adopting continuous self-assessment for learning, and to the development of flexibility in learning beyond the school and outside traditional school hours. Realism creeps into Leadbeater's argument here since such flexibility to learn out of school would not be an entitlement; it would depend on 'earned autonomy' (2004: 72). This is to be achieved through students doing well, demonstrating self-motivation, and becoming more self-regulating. Schools and teachers would no longer prescribe the content and pace and control of the curriculum, but would form partnerships and networks with other schools and other agencies so as to broaden the resources and learning opportunities available to students; their role would be to broker students' access to them and to help them make informed choices about pathways through them.

However attractive in theory, this application of the deep personalisation model also rests on substantial ambiguities. As a matter of fact and of law, currently it is not 'schools and teachers' who prescribe the content, pace and control of the curriculum, it is the state, with most estimates showing state prescription, at least up to age 14, of 90 per cent of what is an age-related curriculum. It is difficult to see how this degree of regulation of the curriculum could allow individual interpretations of the goals and values of education. Even if it did, it would shatter the idea that education had a unifying function in society, initiating the young into the common culture, as Lawton (1975) and others have argued.

The second ambiguity is about earned autonomy, which will have to be demonstrated by pupils/students learning the state-controlled, directly delivered and non-negotiable curriculum, and which may reward self-motivation but not

self-regulation by pupils/students. Moreover, self-motivation and self-regulation, not to mention educational progress, however desirable intrinsically, are not equally distributed among different classes and cultures in English society, so to ambiguity is added the possibility of continuing, or even increased, educational disadvantage.

The force of the above point is explicitly acknowledged by Leadbeater, who sees the main obstacle to the development of personalisation to be cultural, intellectual and financial capital, with professional-class parents being in a position to exploit the advantages of personalisation for the benefit of their own children. Personalisation therefore might increase the already large inequalities in educational provision and achievement, deriving from social and economic status. Leadbeater's answer to this is that public resources would need to be skewed toward the educationally disadvantaged families, with increased and intensive guidance and advocacy from professionals and compensatory resource allocation, for example in information technology. 'With careful design personalised services need not widen inequalities. On the contrary, they could be most valuable for people most in need' (Leadbeater 2004: 79).

This proposed solution to the inequality problem will be discussed more fully later, but at this point it is worth noting that 'not widen[ing] inequalities' is not the same as reducing them, and could be read as implying that personalisation does not embody an ambition to *redress* the sources of inequality in educational achievement or even educational provision. Moreover, it might be thought that in the field of gifted education that the well-established social bias in defining who are the gifted cannot be simply wished away.

Unfortunately for Leadbeater's argument, skewing resources in education to redress societal inequalities has had a long and dismal record of ineffectiveness, going back at least as far as the 1970s, with the educational priority areas and community education movements that followed the Plowden Report (1967). These movements were driven by social justice values but had little effect on the social economic and educational disadvantages of the communities in which they operated. Indeed, it could be argued that what has started to reduce inequality in educational achievement is the direct delivery, through interventionist national initiatives such as the literacy and numeracy strategies in England, of more effective teaching technologies – the educational equivalent of statins (Earle, *et al.* 2003). In contrast to the rest of Leadbeater's argument, the treatment of this crucial issue comes over as weak, and possibly naïve, in respect of its assumptions about the ease with which generation of agency in the most disadvantaged groups in society can be realised.

Despite these concerns, the term 'personalisation' attracted a substantial range of analyses since the publication of the Leadbeater paper. *The Nuffield Review of 14–19 Education and Training* (Hayward, *et al.* 2004), the Economic and Social Research Council (ESRC) Teaching and Learning Research Programme (TLRP) (Pollard and James 2004), a National College for School Leadership (NCSL) special supplement (NCSL 2004) and a government White

Paper (DfES 2004) made differentially effective attempts to analyse the term, though none refers to Leadbeater's work directly. Possibly for this reason, or possibly because the concept of personalisation had not yet been fully worked out, there was no explicit common definition across these papers.

The Nuffield Review, while referring to the ESRC programme, worked with a concept stressing a specified pedagogy – encouraging cooperative learning, mentoring, valuing experiential learning, incorporating learners' personal and social experience, using information and communications technologies (ICT), providing individual support – and allied this to the development of collaborative partnerships of providers to extend accessible choice for students (Hayward, *et al.* 2004: 49–50). In respect of official encouragement for capturing student voice, The Nuffield Review was cautious, articulating a further ambiguity:

It is not clear for what purpose the 'learner's voice' is thought to be important: whether for understanding how to motivate students (to get them to take an interest in things which teachers or trainers think they should be interested in) or whether for shaping the very aims and purposes of learning.

(Hayward, et al. 2004: 37)

Nevertheless, The Nuffield Review's treatment came close to Leadbeater's conception of co-producing a public good, but was less explicit about the role of self-organisation represented in Leadbeater's deepest level.

The ESRC analysis drew upon a fivefold framework provided by the DfES (Pollard and James 2004: 5). This comprised:

- Assessment for Learning;
- teaching and learning strategies that stretch pupils;
- curriculum entitlement and choice;
- student-centred organisations;
- partnership beyond the school.

The rationale for including these elements and not others is not made clear, though Assessment for Learning (AfL), which involves teachers and students jointly generating what best helps students learn and developing meta-cognitive judgements by students about their learning, is palpably part of the personalisation approach. An example of practice in this respect is seen in our first case study, of King's Spafford College, where the college's approach to differentiation required the students to self-assess their own learning through choosing the level at which they pitched their learning tasks (see Chapter 3). Likewise, partnerships beyond the school will be needed if schools are to act as brokers for wider pathways to learning that reflects student choice and is responsive to it. Examples of this kind of brokering can be seen in the final two case studies (see Chapters 9 and 10).

The ESRC analysis, while supporting the principle of personalisation, also illustrated some specific problematic aspects from research programmes already in train. For example, in respect of AfL, it argued: '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' (Pollard and James 2004: 6).

It is clear that this re-conceptualisation directly challenges the model in the White Paper, as will be argued below (DfES 2005). However, it accords very closely with the pedagogy we found in classrooms, two illustrations of which are provided in the case study of Beddington Grove School in Chapter 8.

In respect of consulting students in order to empower student voice, the issues of equity and authenticity were raised: 'Does the consultation consist of questions that teachers think are important or questions that pupils think are important?' (Pollard and James 2004: 11).

This questioning of the purpose of generating student voice resonates with The Nuffield Review's concern on the issue of tokenistic treatment by teachers. The case study of Padbury School is an example of a school involving its students in research projects where real-life issues were investigated by the students – probably as far from token participation as it is possible to imagine (see Chapter 7).

The ESRC analysis also raised three more ambiguities, which it saw as arising in part from the rapid development of the concept, and in part from the 'lack of clarity' about the concept, according to the DfES itself (2004: 25). The first is whether lack of clarity could be constructed as an advantage, since the ESRC analysis cites a paper from the DfES in 2004 to the effect that 'Personalised Learning is an aspiration or a philosophy providing space within which others can operate'.

The second issue was identified as the relationship between the component parts of the fivefold framework.

Its logical and empirical base can be challenged. How are its components chosen and what do they involve? Committed educationalists within the 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.

(Pollard and James 2004: 23)

Third, there was the issue of the reception of the idea by the profession. '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?' (2004: 24). Noting the contrast between the learner-centred character of personalisation and the previous and current statecentred approaches to curriculum and assessment, the ESRC analysis doubts

whether a 'simple switch' between the two modes can be easily achieved within the current professional culture (2004: 24). This may be a pessimistic view since the case studies in this book show high levels of professional commitment to innovative teaching and learning, as can be seen in all the cases and particularly in Chapter 5. The practice in these schools, admittedly some of the most effective in the country, had been developed over the period that personalisation was being proposed, and suggests that the profession was resilient enough to be responsive to the demands that personalisation would place on them.

As with The Nuffield Review, the ESRC analysis had strong, though implicit, assumptions that were close to the Leadbeater concept, perhaps most strongly in respect of its emphasis on student voice and the role that assessment for learning plays in helping learners understand how they learn most effectively, though there is little detailed treatment about the concept of co-production of knowledge, which is restricted to a brief comment on constructivism. It may be that taking the DfES fivefold framework, whatever its advantages for tying in the argument to current education policy developments, deflected the ESRC team's attention from the more generalised Leadbeater model, which was not restricted to education and certainly not to the statutory period of schooling, since his examples include aspects of adult learning.

The special supplement from the NCSL offered a mix of small reports of practice in particular schools, and outlined the idea of personalised learning. There is continuity between the DfES fivefold model analysed by the ESRC team and the particularly strong emphasis on the role of AfL and brokering learning through partnerships.

The most distinctive contribution comes from Professor David Hopkins, head of the DfES Standards and Effectiveness Unit at the time:

It's building schooling around the needs and aptitudes of individual pupils, shaping teaching around the way different youngsters learn. It's also about making sure that the talent of each pupil is supported and encouraged, and about personalising the school experience to enable pupils to focus on their learning ... personalised learning has to be a system-wide achievement so that it impacts on every student in every school.

(NCSL 2004: 7)

Hopkins goes on to stress the importance of pedagogic change, assessment for learning and, unlike the Nuffield and ESRC analyses, asserts that a whole school ethos and approach must be implemented. He sees these elements as implicated in delivering the government's commitment to 'excellence and equity' in education. The emphasis on school ethos and whole school approaches placed on the personalisation concept by Hopkins is illustrated in each of the school case studies in this book, and particularly clearly in Chapter 4.

The NCSL supplement concluded with 23 bullet points for school leaders to help them put the theory of personalisation into practice. Most focus

on improving organisational understanding and efficiency (e.g. 'Exploit the opportunities of workforce reform to involve more adults in preparing for and assisting in learning.' (2004: 16)). Our assessment is that only three of the 23 are directly concerned with students actively generating their own understandings and knowledge as co-constructors with teachers. The supplement therefore can be interpreted as operating at the shallower end of personalisation, at least in its ideas about how personalisation can be put into practice.

The 2005 White Paper gave particular attention to personalised learning, devoting a whole chapter to the topic. Unlike the Nuffield and ESRC analyses however, there was very little to connect the text to the Leadbeater theorising. Indeed, the chapter was distinguished by its refusal to attempt to define conceptually what it understood by the term. There is descriptive rhetoric but no conceptualisation. For example: 'Personalisation is the key to tackling the persistent achievement gaps between different social and ethnic groups. It means a tailored education for every child and young person, that gives them strength in the basics, stretches their aspirations, and builds their life chances' (DfES 2005: para. 4.1). The White Paper continues with:

Personalisation is not new. Our best schools provide a tailored education which combines:

- extra small group or one to one tuition for those who need it not as a substitute for excellent whole class teaching, but as an integrated part of the child's learning;
- opportunities for all children to get extra support and tuition in subjects they are interested in, as well as access to a range of opportunities beyond the school day, including weekend and holiday courses and online learning;
- exciting whole class teaching, which gets the best from every child;
- setting or grouping children of similar ability and attainment;
- a rich flexible and accessible curriculum and, for older pupils, one that allows them to mix academic and vocational learning; and
- innovative use of ICT, both in the classroom and linking the classroom with the home.

(DfES 2005: para. 4.2)

Paragraph 4.6 states that 'most important of all, [personalisation] means excellent, tailored whole class teaching with all the resources available from extra support staff to improved ICT being used to ensure that every pupil gets the education they need (DfES 2005: para. 4.6), and paragraph 4.50 that 'Central to personalised learning is schools' use of data to provide structured feedback to pupils and parents on their progress' (DfES 2005: para. 4.50).

Of course, the target audience for a White Paper might be thought to be somewhat different from those of the Nuffield and ESRC analyses, but nevertheless the lack of clarity in conceptualising personalised learning, and the absence of any sense of ambiguity or tentativeness in the White Paper treatment, contrast with the two academic reviews.

Four other points need making about the assumptions in the White Paper. First, in its perspective, if anyone is going to be involved in co-producing knowledge it is the teachers and the parents, not the learners themselves. Second, there is almost no reference to student voice, and choice appears to be limited to 'allowing' older students to mix academic and vocational learning. Third, there is a strong role asserted for personalisation in tackling the persistent achievement gaps between different social and ethnic groups, but the White Paper interprets this primarily in the limited sense of improving attainment in English and mathematics. It does not present the problem as having political, cultural and economic dimensions, as the Leadbeater analysis does.

Perhaps most importantly, the White Paper separates out treatment of personalisation from other linked policy initiatives, such as increasing parental choice of school, thereby avoiding facing up to the contradictions inhering in educational policy making overall. As Harris and Ranson (2005: 577) argue, 'customising' education for the individual student sits uneasily with the marketisation of education through parental choice. They might have added that it sits even more uneasily with a national curriculum and testing programme, dominated by age-relatedness.

Thus despite the known interest in the DfES in the Leadbeater model, the White Paper runs the risk of transmitting an image of personalisation in only the shallow sense of making the existing services provided in schools and other educational settings more streamlined, more accessible and more efficient. There is very little sense of deep personalisation, in the sense of students and teachers as co-producers of educational knowledge, at least in relation to formal schooling. What this might look like at the classroom level can be seen in the classroom practice described in the case study of Brook Street College (see Chapter 6).

Personalisation in the education of gifted and talented students

We have attempted to show that the personalisation concept is not without its difficulties, especially in its failure to address effectively the problems associated with social class and education. There are also some important conceptual ambiguities to resolve. However, we think that ideas associated with it, (assessment for learning, student voice and choice, whole school values, co-production of learning and self-management of one's education) are robust enough to help us understand classroom practice, and we have used these ideas to frame our school case studies.

Where deep personalisation of education can be envisaged most easily is with older and more able students, and in the adult education/life-long

learning sector. This is because these students are mature and clever enough to exercise voice and choice in their learning, have had enough experience to exercise self-assessment of their learning needs and to self-manage the processes of their own education. We could hypothesise that deep personalisation as a model would be most realisable in the universities, and in schools/colleges providing education in the upper secondary school age range. This is where student voice and student choice have high salience, where there is a range of providers in the education market place, and there are relatively high levels of ability and maturity in the students as consumers. It could be particularly applicable to those school students identified as gifted and talented, and this book examines how it might work for such students. If it cannot be realised for these students, it is difficult to see how it could be for younger, less mature or less able students.

In this book, a particular focus is upon pedagogy, perhaps the most difficult component of personalised learning to envisage since, for obvious logistical reasons, 'tailoring' teaching cannot mean individualised instruction, generally, other than in one-to-one tutorials. You can have a bespoke suit, even today, but bespoke learning in classes of 20 or more students is more difficult to realise, even were it thought desirable. In the case studies that follow, most schools were developing personal tutorial systems to encourage student self-assessment of their learning, but there are also practical examples of deep personalisation of learning in the context of the normal classrooms. However, it must be stressed, that as Hopkins argued (cited earlier in this chapter), personalisation in the classroom depends upon an ethos in the school, and cannot be understood without that linkage. In an age of performance management focused particularly on the effectiveness of the individual teacher in the relatively closed context of the classroom, we think it important to emphasise the way whole school policies also contribute to, and have to be held accountable for, classroom practice. Our school case studies illustrate this directly.

Part II

The case studies

Introduction to the case studies

Eight case studies are presented. The first six case studies (CS1–6) describe gifted and talented policy and provision in school or college settings. They are anonymised and pseudonyms are used. The final two case studies (CS7, CS8) describe specific examples of wider schooling. The data were collected between 2005–2007 and are presented mainly in the present tense, relevant for this period of time.

In the first round of case studies, CS2, CS3 and CS4 were selected because they had already been identified for NAGTY in 2003 as ambassador schools on the basis of their existing national expertise in the area of gifted and talented education, as reported in OFSTED data. These three schools were selected to represent a diverse geographical spread and school type. CS1 was identified because of its distinctive approach to differentiation within a comprehensive framework and its reputation for excellence. For the second round of case studies, the sampling approach was modified to capture further examples of particularly effective practice. The research team at NAGTY analysed the highest attaining schools on the national performance tables and combined this with the highest value-added measures, giving about 40 schools. OFSTED reports were then searched for highly positive comments in relation to these schools provision for gifted and talented education, which gave nine schools. From those agreeing, the team selected two single-sex grammar schools, CS5 and CS6. These gave organisational types different from the 2005 case studies, significantly extending the overall range. The final two case studies, CS7 and CS8 are different in that they represent wider schooling and were conceived because we wanted to examine the extent of continuity between out-of-school learning and in-school learning. CS7 was selected because it was the longestrunning and largest online advanced learning group used by gifted students at NAGTY. CS8, describing a residential summer school for gifted children, like the other cases, represented high quality and outstanding provision as evaluated by OFSTED.

While the structure of each individual case study is written up slightly differently to reflect the differences in the distinctive features of the findings, common themes are discussed in each chapter. These include: brief contextual vignettes

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and background information; school policy for gifted and talented education; leadership and management; classroom practice, pedagogy and curriculum planning; and values and ethos with a particular focus on student perceptions. (For a fuller report on the methodology see Robinson, *et al.* 2006.)

Case study I

Differentiated teaching and learning in an urban City Technology College

Background information

King's Spafford is a comprehensive City Technology College situated on the edge of an industrial town in the East Midlands. It has 1,250 students on roll aged 11–18 (250 in the sixth form), and is therefore larger than most other secondary colleges, and there are more boys than girls. The college is oversubscribed. It partly selects students at age 11 as directed by the government, for their aptitude in Science and Technology, but otherwise the spread of abilities is normal.

The college has won a series of external awards which bear testimony to its commitment to excellence. It was among the first cohort of Leading Edge Colleges announced in 2002 and has established an online resource and training centre to assist local teachers in developing their practice. In the same year, the DfES invited the college to create a prototype of an online service for teachers with video footage of excellent classroom practice in conjunction with six other colleges. In 1998 the college was chosen by the DfES to be a Masterclass provider for local gifted and talented students, for which demand is high. It is also one of the few colleges to have been awarded the ISO EN 9002 Quality Assurance Standard and it has the Investors in People award, which was reconfirmed in 2002. It received a College Achievement Award from the DfES in 2003.

The college has a strong link with the local community. A few students have English as an additional language and 2 per cent of students come from ethnic minority backgrounds. The percentage of students eligible for free college meals is in line with the national average at 10 per cent. Fewer students than is average have special educational needs (SEN) or have formal statements of special needs.

The college received a very favourable OFSTED report in November 2001, citing outstanding student achievement by age 16 and excellent leadership and management. General Certificate of Secondary Education (GCSE) standards are among the best in the country, with the percentage of 15-year-olds achieving five A*–C grades consistently placing the college in the top five state mixed comprehensive colleges in national league tables. In 2004, 100 per cent of

students achieved five A*—C grades and there is a very low gender gap. As a result, boys significantly outperform the standards attained by boys nationally. Although the college is well staffed overall, it has a very high staff turnover each year, mainly because of promotion to jobs elsewhere.

Gifted and talented policy

The college gifted and talented policy has an opening statement of intention as follows:

The gifted and talented provision ... will ensure that our high ability students become high achievers. All students should be motivated by recognition of their strengths in an atmosphere where their educational, social and emotional needs are met. It is the responsibility of all teaching staff as well as HoDs and SMT to ensure that the needs of these students are met.

A concerted focus on provision for gifted and talented students began in 2003, building on a previous track record in this field, during which time a deliberate policy was formulated and disseminated. A draft policy was initially taken to departments for consultation, but it is also the case that the policy emerged organically from curriculum development work on the Key Stage 3 (KS3) strategy. The policy requires students to be identified biannually, and their progress monitored through the year by the designated gifted and talented coordinator. Identification is multi-pronged – by teacher observation, parent nomination, peer nomination, self-nomination, departmental student audits using subject specific checklists, Standard Attainment Tests (SATs) results, NFER tests and other performance data. Staff pass completed departmental referral forms to their Head of Department (HoD) who then passes them on to the gifted and talented coordinator.

King's Spafford has provided its own set of key characteristics which are used to think about identification, in addition to individual department-specific indicators. The college website is also a repository of some of the key areas of research and theory in gifted education and, as a result, it is a very useful resource in its own right. However the identification system and college register are still evolving and a number of key personnel in the college acknowledge that it is very early days for the concept of identification in the college – not to mention 'talent' identification which is still a confused issue. It also appears to be the case that the website is not accessed or used to any significant degree by the staff at King's Spafford, so this is clearly a work in progress.

Once identified and on the college's register, it is expected that each student will meet with the gifted and talented coordinator who will develop an individual learning plan (ILP) to support the students' needs, which may include acceleration opportunities, withdrawal groups, staff mentoring or other schemes of work. It is then the responsibility of each HoD to ensure that provision is available in the right subject areas. King's Spafford has a particularly broad and detailed list of what these expectations are, ranging from the creation of an effective learning environment via resources, creating an appropriate ethos, the celebration of achievement, enrichment and extension activities, teaching higher order skills, and providing for emotional, social and intellectual development.

Students' ILPs are reviewed biannually in conjunction with the gifted and talented coordinator and departments and the overall review process takes place as part of the whole college review of its provision. The policy makes clear that 'gifted and talented provision and identification is the responsibility of all teaching staff. Each department will appoint a gifted and talented liaison tutor who will meet with the gifted and talented coordinator when necessary.' Furthermore it also falls to HoDs to ensure that planning for gifted and talented provision is properly factored into their own departmental reviews.

There are, therefore, a number of clearly established monitoring points and designated allocations of responsibility to key staff for ensuring that the policy is being thoroughly implemented throughout the college. At the time of the study, it was clear that the whole-scale implementation of the policy was still in progress, with some staff needing more advice than others. The deputy headteacher interviewed stated that he hoped the policy would evolve and establish the same sort of currency as SEN practice had done in the past and that a complete register would be in place, with students and parents being informed discreetly. There was some reservation about the extent to which being identified as a member of a gifted and talented register should be made explicit to students and parents.

Leadership and management

The gifted and talented coordinator

The college's gifted and talented coordinator received two days of external training which she considered to be excellent, and is a member of national bodies and contributes to the Oxford Brooke's teacher CPD programme. She saw a need to raise awareness of the particular needs of gifted provision within the college, and was concerned that this particular agenda could get lost amidst the many other potentially competing initiatives and pressures. While a suite of identification pro formas for individual subject areas is available, their use was not yet widespread. Consistency of provision across all subject departments was highlighted by her as a weakness in the development of the policy. She viewed the college's strengths in gifted and talented provision to be rooted in provision of clearly differentiated levels of work in all lessons, which included designated advanced level provision. We would argue that while many students aimed for advanced level work, it is questionable whether the

advanced level work was pitched at the level of the most able students and was fully appropriate in terms of stretch and challenge. In addition, in a system where students are free to choose their level of work, with advice and support from their teachers, there is potential for students to opt for an easier level. In practice it would seem that only a handful of students deliberately opt for the easier levels, suggesting a high level of motivation in a high-aspiring climate. The gifted and talented coordinator receives a comprehensive set of tracking information on each student through the student management system covering attendance, behaviour, test results and comments from teaching staff, which is used to inform her termly meetings with all the students on the gifted and talented register. The control and allocation of the gifted and talented budget is managed by the senior management team (SMT) and not the designated gifted and talented coordinator at King's Spafford.

Senior management

The SMT is characterised both by its strong drive and vision, but also by its lack of top-down imposition. The 2001 OFSTED report judged the SMT 'excellent - very effective and innovatory'. The SMT encourages dialogue and attempts to draw on and recognise the individual strengths of all its staff members. The way in which staff and the college as a whole works in a very democratic manner is essential to supporting the college's organic curriculum, in which subjects are linked to each other and knowledge is integrated. In addition, this democratic approach has been found to energise staff and offer them more responsibility. This in turn re-energises HoDs who have considerable autonomy within the structure and have to manage staff differently. The SMT believes that what happens in the curriculum has to mirror what takes place in the college and vice versa, thus the process of reviewing the KS3 curriculum became part of the process of leadership and management within the college: 'curriculum building becomes a management tool at the same time as being a learning tool.' A draft paper written in 2004 by the deputy headteacher on constructing a new KS3 curriculum for the college, states that 'King's Spafford has a unique philosophy, and it is that philosophy (rather than the government, external forces or individual whims of managers) which drives change ... part of that philosophy is about empowerment: staff and students do not accept the "givens" of government control as axioms."

The SMT coordinates an annual institutional review which comprises a year-long programme of lesson observation, an evaluation of departments' performance, and an evaluation by peers against clearly defined targets. In addition, the college's longer-term planning is, according to OFSTED, 'exceptionally thorough'. Members of the SMT also take on a mentoring role, working closely with students who are identified as underachieving in Year 11, becoming their 'special friends', providing close guidance, mentoring and support for them to manage their work. This has resulted in improved standards

of the students involved and is highly recommended in the OFSTED report. The deputy headteacher however reinforced the fact that students buy in to the overall notion of the challenges of the college:

'it's a consistently challenging environment ... the students who come here, from the moment they come here, are told about their obligation to try and do their best because, they're here and three other people who applied aren't here ... if you buy into it, you will be challenged consistently not just in terms of whether the work that's offered to you is challenging, but what we expect of you in terms of your mind.'

Governors

The 2001 OFSTED report gave the work of the college governors a glowing endorsement, describing it as 'Excellent', and notes that 'Governors determine priorities with senior management, monitor performance very closely and support well-planned, worthwhile innovation vigorously.' The governing body is mostly made up of local people with a genuine feel for the local community's needs. Governors are elected because of their particular interest in local education matters. It is the governing body that aims to encourage the students to be as actively involved as possible with the local community through a variety of means. It is apparent from the college's public information that the governing body has a considerable impact on the college and it is recognised that they contribute a lot of time to helping decide the college's future, including through residential weekends. However, with specific reference to gifted and talented provision, the governors have a more hands-off approach and have invested more of their concern in the area of less well-performing students, although they have received a training session on gifted and talented.

College environment, ethos and culture

What is most distinctive about King's Spafford is its innovative and highly professional culture; one where the interests of the students come first. Its website states that 'excellent student care, innovative practice and very high expectations all contribute to outstanding results.' The 2001 OFSTED report endorsed this statement and also focused on the college's unique and innovative culture:

In this environment, no student is average. As students step through the turnstiles and register their attendance with their smart cards at the beginning of the long working day, they enter a different and challenging environment that demands that they have the highest aspirations of themselves. All students are regarded as individuals and are expected to aim high to use their talents and potential for learning to the full. As a result of this innovative culture and the high levels of success, King's Spafford offers visitor seminars to accommodate the number of requests they receive for visits. The college has a much longer working day than most secondary colleges, from 7.30 am to 6.00 pm and all students are also present for breakfast. Formal classes start at 8.35 am and after 4.00 pm there are extracurricular activities and students can stay on to complete their homework. Students have seven hours more time in lessons each week over a five-term academic year than students in most other schools and colleges. The environment consists of very modern, light, purpose-built facilities which are smart and clean and can be described as more corporate than college-like, appearing to exude confidence. There is a lot of activity with children moving freely around the building and working in various kinds of study areas.

A key feature contributing to the college's unique ethos is that students of all ages and members of staff share facilities on an equal basis and to this end there is, for instance, no staff room and there are no bells at the end of lessons. Students spend a lot more time with staff than they do in many other schools or colleges, taking two meals a day and two breaks a day with staff present; adult expectations largely determine standards of behaviour. Students can use the facilities after college and in the holidays freely and open study access areas are available with ICT access and a wireless network. This is workable as registration of students is recorded electronically through the use of a smart card which also functions as a coach pass, library card and payment for college meals. The open access policy is rarely abused, which testifies to the cohesive and integrated nature of the college, but furthermore, as described in the college prospectus, 'This open access philosophy is central to the belief that students, in charge of their own learning, are capable of achieving above normal expectations.' The 2001 OFSTED report endorses this belief: 'Relationships are very good. Students are expected to act sensibly and maturely – and do so ... Attendance is much higher than average. There is no unauthorised absence.'

The library is modern and well resourced with state-of-the-art ICT facilities including the short-term loan of wireless laptops to the students. The college also possesses an editing suite with industry standard equipment; an advanced electronic music studio, DJ technology suite and individual practice rooms; a multi-purpose theatre for dance and drama productions; a business centre including a lecture theatre and conference rooms; and flood-lit all-weather sports pitches. Each student has a personal tutor to act as an advocate on their behalf and the college also encourages a home/college partnership. The college has a good standard of behaviour which they maintain is attributable to their belief that students and staff need to live together in a well-ordered society with respect for each other. The prospectus also states that:

The College places great emphasis upon caring for the individual student in every lesson throughout the day, ensuring equality of opportunity and entitlement. In this way we believe our students are best able to realise their true potential and to make a responsible contribution to their own learning.

Communication between the college and its students takes place via e-mail (each student has their own account) and a series of television monitors around the college. Routine information is passed to students during the tutor period and is reinforced during assemblies. The 2001 OFSTED reports notes that 'Assemblies place emphasis on high aspirations and expectations of students morally, socially and intellectually.' King's Spafford also has a comprehensive website with access to curriculum material and online courses.

The learning culture is defined around a set of values that privilege individuality and autonomous learning, openness to new initiatives, seeing connections across subjects, linking learning to wider applications, using a wide variety of resources and working in a wide range of settings, and encouraging self-reflexive learning. The website highlights ways in which staff can encourage this kind of culture by creating a learning culture, through providing questions and challenge, and carefully considering their planning and resources. There is also a detailed discussion on the website about what constitutes differentiation, according to the college's own particular model.

Student perceptions and experience

Students were aware of the exceptional resources that they had access to, one saying, 'the facilities at the college are as good as you can get.' The ICT facilities were particularly praised by the students who clearly recognised that this was not a universal feature of all schools or colleges. One student reported, 'I know other schools usually lock them up or something, because they don't trust students but they really trust us ... nothing ever gets damaged or anything, it's really good, you feel safe here.'

But along with this the students stated that there came an expectation for very high standards of presentation, which they recognised was providing them with useful skills. The students also said that the staff were very ICT literate and ICT problems did not impede lessons.

Students stated that teachers gave freely of their time and were happy to stay after lessons and provide extra help. The close working relationship between staff and students was endorsed by all the students interviewed. They all mentioned their personal tutors, with whom they have contact time every day, as a source of support and provided examples of how they acted as advocates on their behalf, one student commenting, 'My tutor would be the first person who I'd ever go and see about a problem, because I feel like I can just tell him anything.'

The students claimed to feel very supported and motivated by their teachers, and clearly work hard, but in an environment which does not have a strong individual reward system. The students do feel praised if they do well and state

that they have clear feedback, one student reporting, 'our reports are being changed ... so now you get your level, a target level and whether you're on target.' However this is not a main focus of the college's displays or assemblies for instance. In fact, the students demonstrated a very mature and balanced attitude to achievement, once again endorsing the college's aims and demonstrating that high achievement can go hand in hand with students feeling in control of their workloads. The culture of hard work that was observed on visits was also endorsed by the student interviewees, one commenting, 'it's virtually a business place and we get down and work.' The students also endorsed the fact that discipline was not a problem, one saying, 'you always get the person that tries to muck around and stuff, but they get sorted out within a few minutes.' The notion of challenge is embedded into the whole college ethos and reflected in the way the students speak about their work.

The students were all very clear about the different levels at which they could work and demonstrated that the system was both easy to fit in to and work with. Each lesson commences with around 20 minutes of teaching time on core material to students working at all levels. Students are then given a lot of freedom to make their own choices about which level to work at. They clearly stated that they were helped in their choices by their teachers, but it did not appear to be the case that there was a problem with students regularly pitching themselves below or above their capabilities. One student commented, 'people don't all want to do advanced work ... they want to like do the work that they know they can do and not struggle to try and beat somebody who's better than them.'

Students explained that they received detailed feedback from teachers with a marking scheme that reflected the levels they could work at, which helped students to be clear about whether they were working well at their chosen level, but also whether they were being provided with enough challenge. Students taking accelerated courses were not isolated but worked with peers, which they seemed to appreciate. Students also spoke about a supportive working environment where students working at higher levels than peers in their group would offer support to those working at lower levels, although it should be remembered that research suggests that this approach is not always in the best interests of gifted and talented students. Students interviewed talked positively about the flexibility of the curriculum and about a college culture which expected everyone to achieve, without adverse pressure.

Students spoke freely about how they felt challenged by the ethos of the college and that they also challenged themselves, one student stating that a member of staff had told him that not doing well in an A-level he was taking early would not be a problem as he was doing it to be challenged. There is an interesting relationship between achieving well in examinations, which the students interviewed frequently referred to as a driver, and the college celebrating this in terms of its standing in the national league tables, and the notion of work that should be relevant to each individual and inherently challenging regardless of external validation.

A group interview with sixth form students produced a more nuanced picture, students stating that they would have wanted more extra-curricular activities and that at times they felt carried away with the college's policies or practices on accelerated examinations, for instance, which were not always what they would have chosen for themselves. They stated that they did feel under a lot of pressure – for instance asking for more break times – and that there was competition between students. They also wanted students who were more 'middle-ranking' to be recognised.

Classroom practice and pedagogy

Lessons are 75 minutes in length with an emphasis upon practical experience in all subjects. There is also a strong emphasis on ICT, as the prospectus demonstrates:

[King's Spafford] can justifiably claim to be one of the most advanced of any state college in the use of technology. Wireless laptops, multimedia software packages and interactive whiteboards are regular features of classroom practice as tools for students and teachers alike.

A key element of the curriculum is that students can work at one of four levels: basic (minimum acceptable for age), standard (average performance for age), extended (above average performance for age), advanced (at least one year in advance of average for age). The website states that 'Advanced Level must be where students are supported in the metamorphosis from high ability into high achievers better known as gifted and talented.'

As noted above, students are taught 'core' work for the first 20 minutes of a lesson, and often then continue to work at their level in mixed ability groups, which is something which may not suit all gifted students all of the time. Group work does often take place within the same level, however, and there is a lot of evidence of desks arranged in groups rather than rows. In practice it appears that work is sometimes differentiated into two levels, basic-standard and extended-advanced, and is also less differentiated in the sixth form, largely due to the demands of covering the specific syllabus. The deputy headteacher said that the objective criterion for advanced level work being one year above the National Curriculum level means that in practice it is unlikely that this exact correlation will be found across the curriculum. In addition he suggested that it would be desirable for more gifted and talented material to be written in-house to fit the specific way in which the college curriculum has developed - with consideration of writing a 'fifth level' to fully provide for the most able students in the college. There are also examples of one or two students in the college who have completely individualised timetables.

The 2001 OFSTED report states that 'Teaching is good and much is very good, enabling students to make excellent progress and achieve remarkably

well.' There is a strong emphasis not only on teaching but ensuring that learning has taken place, as the prospectus makes clear: 'At King's Spafford no lesson is designed for passive learning.'

Exemplar lesson plans and professional support for teachers are also available online. Specific examples of classroom practice which were observed are summarised here:

- Core work is followed at the start of the lesson which is then differentiated into higher ability levels across all subjects.
- Lesson planning is a particularly strong feature and for instance underpins
 the success of 'showcase lessons' where two teachers of different subjects
 combine their subjects to provide an original learning experience for
 students.
- Very effective use of visual displays and ICT observed in lessons was popular with students.
- Effective group work was observed in both mixed ability and ability based groups.
- Lessons employ real-life problem-solving and broader thinking skills, not
 just mechanistic learning, for example thinking practically about themes
 in ways that transcended individual subject lessons.
- A variety of techniques was employed which were regularly changed to maintain engagement throughout lessons.

There is an issue in the college with high staff turnover as a result of teachers leaving to gain promotion elsewhere and less experienced teachers coming in to fill their posts, but this does not appear to have had a negative impact upon standards, largely due to the support that new teachers receive. One way that this is facilitated is through the regular practice of two teachers working together to teach a double class where newly appointed and inexperienced teachers can extend their skills.

The overall high standards that the college has achieved for students up to age 16 is not matched fully in all subjects in the sixth form. The deputy headteacher interviewed said that possible reasons for this were the open entry policy into the sixth form where students were allowed to pursue any subjects, regardless of prior achievement, or that students over-perform at GCSE as a result of the particular support and structures in place at King's Spafford, and the value-added component cannot be carried on beyond a certain point. However, the post-college destination of students is mainly into Higher Education (HE), with many students achieving their first choice of institution.

Curriculum planning and development

King's Spafford's curriculum is referred to in-house as the 'Advanced Curriculum'. The college mission statement highlights the following attributes:

- designing a curriculum to promote a full range of learning, thinking and life skills:
- providing a broad, balanced and relevant curriculum with emphasis on science, mathematics and technology and learning the importance of doing and understanding;
- devising flexible and responsive learning styles, particularly those which take into account the impact of technology on learning itself.

However, its main strength could be said to be that it offers differentiation throughout the curriculum and the deputy headteacher stated that he believes that they are moving more towards looking at the individual and less at the timetable. All lessons at KS3 are organised to accommodate students' differing abilities and in addition the KS3 curriculum is completed by the end of Year 8, allowing for 'a richer and more flexible approach to their KS 4 and Post-16 studies', according to the prospectus. The quality of what is offered therefore depends largely on the individual teacher as well as the HoD, but this is also a weakness of the system because there might not be an even distribution of excellence across the different subject areas in the college.

The college carries out an annual review which is a central feature of its quality assurance framework and this provided the impetus to compress the KS3 curriculum to two years. A reconsideration of the classroom climate led in addition to the 'CELTIC curriculum' (Creative, Energetic, Learning by doing, Thematic, Independent learning, Cross-curricular). Each term's work is planned across subjects under an umbrella theme. The thematic nature of the content delivery includes both core skills planning and an element called 'Enterprise Skills' to better equip students for the enterprise culture. A software package known as the 'Learning Library' has been used to underpin the planning and development of resources for the curriculum and is currently used in a more targeted manner to develop specific materials, such as those for gifted and talented students. Student learning and curriculum design is monitored and evaluated for quality by the following means: departmental internal evaluation, SMT working alongside students, book trawls of students' work, targeted lesson observation, audits of the curriculum for the most able, and use of assessment data to track progress over a year.

At KS4 and Post-16 students are taught either in mixed ability groups or in sets and work is still made available at four levels. The aim of the college at this stage is to provide a flexible and broad curriculum driven by student choice and KS4 begins with a carefully planned induction programme. To recognise the high levels of competence achieved in ICT, most of the students pursue a General National Vocational Qualification (GNVQ) or diploma in ICT. In the sixth form students are required to take a minimum of four A-levels or their equivalent.

There is a high level of sophistication in data management. Assessment and target-setting data have now been integrated and all staff have received bespoke

training in data analysis techniques to assist them in interpreting the performance of students. Student performance is recorded and reported to parents and students every term (i.e. every eight weeks). Termly grading is given for effort, homework, coursework (good, satisfactory or cause for concern) and overall at college level. Students also receive a target level for each subject and a progress statement about whether they are on target. A live account of performance is being trialled with the sixth form which will provide all examination results and predictions in a read-only document. But the strength of the system lies in the way that it is used by students and teachers for target-setting. The curriculum in Years 9 to 11, for instance, is supported by encouraging students to develop self-awareness and providing them with skills in reviewing and target-setting.

Extra-curricular activities

At the end of the formal teaching day at 4.00 pm extra-curricular activities are available and many students also stay on until 6.00 pm to do their homework. Many curricular and non-curricular visits and activities are organised and there is a Year 7 residential programme. Years 8–13 take part in a whole college residential programme, designed to enrich identity with the college and strengthen relationships between students and teachers. Music lessons are subsidised, but not free, and students are advised to purchase their own instruments. The provision of extension opportunities is an area that the gifted and talented coordinator has highlighted for development since none of the activities on offer are designed specifically for gifted and talented students. At present the whole college enrichment programme is under review, however one concern expressed by the deputy headteacher was the expansion of extra-curricular activities so that a culture evolved of the same cohort of students attending events specifically created to meet the needs of the gifted and talented, which would then crystallise into a culture of an elite group who would always work in this more exclusive way. While stating that this may be right in some college environments, he felt that it was not the best situation for King's Spafford.

Saturday master classes are offered to local gifted and talented students in English, science, mathematics, ICT and design technology and are well attended. The college's development plan states that 'raising educational standards in the locality and contributing to the development of the education service nationally is seen as a normal part of our work.'

Distinctive features

King's Spafford is framed very much around a highly professional, corporate, work-oriented environment, which fosters student-directed learning within a culture of mutual support and trust between students and teachers. As one

Year 11 student commented, 'it's not like coming to college here, it's like coming to work. It's smart like a business.' With high expectations of all students and high aspirations, this culture encourages students to take responsibility and ownership of their own learning and for ensuring that they set challenging goals for themselves. The emphasis is on individuality and autonomous learning – good practice being modelled by the staff.

At King's Spafford, the particular focus on differentiation, which is highly effective and consistent across the college, is distinctive and offers a very interesting approach to a gifted and talented strategy, as well as a more general pedagogical model for all abilities. It is a constant theme that runs through all lesson planning and delivery and is a reminder that work must always be delivered at different levels. This highly structured model of differentiation is supported with high-level knowledge of individual students' performance through a rigorous tracking and monitoring system, which keeps all staff in the loop regarding individual progress, as well as risk alerts. A supportive mentoring system for 'at risk' students can be triggered which is particularly helpful for those gifted students at risk of underachieving or simply 'coasting' - no student technically being able to 'fall through the net'. Since students are partly responsible for choosing their own work levels, it is vital that the college both fosters and maintains a strong ethos of motivation and challenge - and this is one of its core strengths. It has a concentrated vision that everyone buys in to. As a result the organisation functions very strongly and this in part can be summed up by the way in which the curriculum is embedded into the whole college's ethos. As the college's draft paper on KS3 strategy states:

Curriculum and ethos run in partnership. For example, to teach enterprise would be pointless unless the enterprise culture – time management, independence, initiative – was a living organism within the College for both staff and students ... if students had choices in learning terms it was because the College has an ethos of respect for the individual.

However, despite offering a high level of differentiation to its students at KS3, the draft paper which promoted a revision of the KS3 curriculum notes that:

Despite the differentiation system and the good level of examination results, the NFER profiling undertaken by the College indicates that very many more students are capable of pursuing higher level work than is currently the case in most departments.

It is worth noting that the advanced level curriculum offered, despite being a significant contribution to providing differentiated pathways for students, is not necessarily a sufficient model for its highest-achieving gifted students. For example, one student interviewed who had been assessed as being in the top 2 per cent of the cohort nationally and was regarded as the college's most

'exceptional' student, did not feel sufficiently challenged by the standard fare of advanced level work. He regarded his personalised plan with an individual timetable combining a mixture of self-directed learning, acceleration and early examination entrance as appropriate for his needs and was a highly selfmotivated student. This kind of differentiation, however sophisticated, will not necessarily meet the needs of the very brightest students and is only one strategy. At the same time what is understood and meant at subject level about advanced-level work across the college is something which is constantly kept under review. The deputy headteacher argued, 'we have worked very hard to try and address here our advanced level curriculum. There is now an understanding amongst our teachers that it's not just about doing more.' In relation to provision for gifted and talented students, he had high hopes for the creative potential of the new curriculum, with more opportunities for independent learning – learning by doing and a properly embedded approach within the day-to-day lessons: 'The focus is back in to the curriculum; it's not starting with pulling out the more able students and saving we're all going out on a mini-bus today!'

Case study 2

Gifted education in an inner-city multi-ethnic comprehensive school

Background information

St Etheldreda's was founded in 1699, which makes it one of the oldest girls' secondary schools in the country. In 1928 the school moved to its present home in South West London. Its Local Authority (LA) is in the top four LAs in the country for 'value added' results. It is an EiC area. St Etheldreda's is a fully comprehensive Church of England Voluntary Aided High School, and Technology College status was awarded in 1996. The school has a Sportsmark Award and Investor in People (IIP) status. It is also a Lead Practitioner School for Equality and Inclusion. It opened a sixth form in 2003. There are 759 students on roll, which makes the school smaller than other secondary schools nationally.

Entry requirements state that 60 per cent of students must come from practising Christian families, with the other 40 per cent of places open to students from the local area. Attainment on entry is broadly average but the socioeconomic background of students is overall well below average, with 25 per cent of students on free school meals, which is above the national average of 16 per cent. Almost 90 per cent of the students are of Caribbean or African heritage, with a significant proportion (23 per cent) speaking English as an additional language. A high percentage of students have lone parents. The number of students with SEN is 87 (11 per cent of the total) and this is slightly lower than the national average (although the number of students with statements of SEN is higher than the national average).

The percentage of 15-year-olds achieving five or more A*–C grades in 2005 was 73 per cent. Standards have improved consistently over past years. GCSE results were below the LA average in 1994 (an LA which itself had results well below the national average) but have climbed steadily and since 1997 have always been above the LA average. By 2001 results rose above the national average and have been there since. Standards are now very high, compared with those of students in similar schools, and are in the top 5 per cent nationally. The school is over-subscribed and received a very favourable OFSTED report in November 2002, being identified as a very good school with no significant areas of weakness.

Gifted and talented policy

The school's 'Policy for the More Able' was first delivered to staff in 1999 after a working party of six staff developed it over a period of a year. It embeds the whole school ethos into a wide range of provision for all students, not only those identified as more able, which aims to recognise potential wherever it exists. The policy states that:

Support of the more able is in line with the school's commitment to the pursuit of excellence in a caring environment where each individual is encouraged to meet her full potential ... All staff should take every opportunity to declare high expectations in terms of appearance, manners and commitment to achievement.

The policy also states that ability in Year 7 students is initially identified on the basis of KS2 and NFER test results and thereafter on continued high performance in tests, potential to excel and determination to succeed, and student attitude, including the ability to work independently. A tracking group of 10 per cent of students in each Year group is identified three times a year using a variety of data including from the Fischer Family Trust, and details of these are submitted annually to the DfES. St Etheldreda's inclusive approach does not direct provision exclusively at this tracking group but rather enables many of its students to take up the extra activities on offer, resulting in more like 20 per cent participation. Students are not explicitly told if they are on the gifted register, but it does become apparent from the formation of ability groups.

Students are banded in KS3 and provided with differentiated work at four levels. Setting takes place at KS4 for core curriculum subjects, with mixed ability teaching taking place in option subjects. Early entry GCSE is available in a number of subjects, including mathematics, which is a subject popular with students. The staff handbook states that:

A degree of banding should enable every student to be given more appropriate challenges and tasks to develop her own confidence and self-esteem. We have high expectations of all students and ensure we use data and teacher assessment in order to set appropriate yet challenging targets.

The identification system is a flexible one where students on the gifted register are re-assessed on a yearly basis and other students can be added when appropriate. The Policy for the More Able states that the delivery of the curriculum for the more able is based on a departmental approach, with each department being responsible for implementing appropriate teaching strategies and identifying students with high subject-specific ability. This is underpinned by a whole curriculum approach managed by the gifted and talented coordinator

with the assistance of a designated member of each department to give a more unified teaching programme. The gifted policy and provision are reviewed and evaluated annually by each department and for the whole school, but overall it is the gifted and talented coordinator and the SMT who are responsible for developing policy. New staff are inducted in policy and practice with a one-hour training session, but in addition they receive specific professional development training on gifted education.

The school is uncomfortable with an explicit and open labelling of girls as being on the gifted and talented register or not. This was born out of experience of the early stages of the implementation of the gifted policy when parents were informed if their daughter was on the register but beyond this they were not involved in school-wide policy and provision in order to try to maintain a non-elitist system. However, the decision was then taken not to notify parents any longer, and it is not always the case that students are informed about whether they have been identified or not, as the school is trying to avoid other children being resentful of special treatment of a few.

Leadership and management

The gifted and talented coordinator

The school's gifted and talented coordinator has overall responsibility for delivering the school's gifted and talented policy and provides professional development opportunities and other appropriate training and support to staff. She has been closely involved with a LA partnership, having regular meetings with the coordinators of the other schools in the cluster where good practice can be disseminated. The gifted and talented coordinator is responsible for monitoring the progress of all the students on the gifted register, being provided with assessment and tracking information by HoDs. However she demonstrated some concern about where the cut-off point with regard to identification should be, highlighting the ongoing need for discussion of the issues to refine the school's approach. She does believe however that the identified cohort are not at risk of underachieving; all are getting or are on target for A* grades.

The gifted and talented coordinator has been in post since the policy for the more able was written in 1999 and she sees this consistency in post as an advantage. She is very dedicated and committed and uses a lot of her own time to do the job, finding that there are peak periods when extra work becomes more of a demand. She has set up a wide range of activities, as detailed below, together with the Aimhigher coordinator, who has been in post for two years.

The SMT has control over the amount of funding allocated for gifted and talented activity (which comes largely from the EiC Standards Fund) and the gifted and talented coordinator is unusual in having sole responsibility for managing these funds, which she allocates to the following areas:

- enrichment activities funded partly from EiC funds and partly from departmental allowances;
- additional revision and homework sessions in key areas funded internally;
- additional homework sessions in non-key areas funded by the Walcott Foundation;
- special projects;
- mentoring, which is funded by EiC funds supplemented by the EAGLE Project (Encouraging Ambition, Generating Learning Experience) based at St John's College, Cambridge.

The gifted and talented coordinator feels that she has sufficient funds to meet the requests that come to her from staff. In January 2005 a gifted and talented inspector came to the school to provide specialised professional development and the National Association for Able Children in Education's (NACE) *Teaching/Thinking* magazine is available to staff. Partnership projects with local schools are funded by internal school funds and sometimes also by parental contribution.

It is clear from the gifted and talented coordinator that the external funding streams are critical, as without these much of St Etheldreda's additional provision would not exist. The 2002 OFSTED report states that 'The school makes very good use of funding available from the Excellence in Cities programme, supporting enrichment activities for students who have particular talents or who are high achievers.'

The school is lucky to have external gifted and talented strand funds and is therefore unusual in stating that it has sufficient funding to meet its needs with regard to provision for special gifted activities. However, it is not complacent and actively targets further funding sources to supplement this. Equally, it does not seek to invest in provision or resources which do not also impact on whole curriculum delivery and benefit all the students.

Senior management

Inclusivity is a central part of the ethos of St Etheldreda's and the author of *Raising Aspirations*, a report about the school argues that what has driven forward the initiatives detailed below is the commitment of the SMT to inclusion:

The headteacher and senior staff provide excellent leadership and strong management so that there is a clear direction for the work of the school ... The ethos and organization of the school meet the needs of individuals and groups of students very well ... Students' personal development is very good and they develop self-esteem, self-discipline and strong community values.

The school's management demonstrates its strong belief in the talents of all its students by heavily subsidising a range of extra-curricular activities, which are available to all students, thereby promoting the school's agenda of inclusivity. The headteacher demonstrates a strong personal knowledge of the students, whom she knows well and by name. She is a firm believer in developing the infrastructure of the school in terms of environment, systems and ethos and even through messages posted on the three digital screens which overtly celebrate and reward achievement. Her agenda has been to provide a 'safe haven' within the school and to boost girls' self-esteem, especially when taking into account the particular situations that they may confront outside of school. There is a real sense that the SMT knows the girls and values them as individuals, through valuing all their achievements, not necessarily only academic achievement. However a potential weakness of staff-student relationships being so critical is seen to be that a dependency culture might develop on the part of some of the girls, which was acknowledged. This in turn has also led to problems with the students not being able to work as independent learners or floundering once outside of the immediate school environment.

Governors

The vice-chair of governors believes that it is the duty of the school to bring out the talents of all the students via the collective culture and the shared view of the whole school, which was again emphasised by her. The active involvement of the school governors in the school is clearly a factor which contributes to the strong and visionary leadership which has been praised in its most recent OFSTED report and which is evidenced by the sharp upward turn in the school's results. A member of the governing body is responsible for the progress of the gifted and talented initiative and this is supported by the fact that they actively exploit contacts for extra funding to ensure the continuation of these activities.

A teacher governor confirmed the fact that the positive school ethos promotes values which means that, 'the child will come away from this school feeling very positive about themselves, feeling confident and with aspirations ... I would say that, it obviously comes from the head down.' He stated that it was important in the school context to be aware of barriers to learning both within and outside the school. The vice-chair of governors also stressed however that while it was very important to raise aspirations and reward success, this should be done realistically. Both the SMT and governors demonstrated sensitivity to the particular context of the school's students and this is clearly central to creating an environment that will meet all their needs and foster their talents.

School environment, ethos and culture

A plasma screen in the reception area welcomes students and visitors with messages that reinforce the positive school environment. Laminated posters in the classrooms also reinforce the key school messages with regard to high expectations, collaborative learning, anti-bullying and expected behaviour, often by using motivational quotations from famous people to encourage self-esteem. There are many superb wall displays and photographs around the school and there is evidence of work from most subjects and key stages, including performance data of SATs and GCSEs. In the science department individual girls who have achieved top scores are named. The building is old and could have been shabby, but instead it is cheerful and the overall impression is that learning is fun. The school uniform is carefully policed, as are good manners and polite exchange between students and between students and school staff.

There is an interactive whiteboard in every classroom and all teachers have a laptop. The computer suites which the students can book in to from 8 am–5.30 pm are very popular with students and are commonly used for both coursework and homework. There are plans to continue to develop the school environment, for instance the library, which is heavily over-subscribed, with girls clamouring to use it during break and lunchtimes and after school, and caters for a broad ability and interest spectrum, including running a readers' group for gifted and talented students.

A good starting point from which to uncover the whole school ethos with respect to gifted and talented students is the statement by the headteacher in the school prospectus. Here she says that 'we believe all our students have gifts and talents hence our huge range of extra curricular activities.' This is echoed on the gifted and talented pages of the website, which state that 'As a Christian school we constantly remind our students that they all have God-given gifts and talents and we celebrate these every day in our teaching, our events and in the day-to-day life of the school.'

The school takes many opportunities to celebrate achievement publicly with prize evenings and end of term achievement assemblies. The staff handbook states that:

there must be a clearly defined and understood system of rewards ... Honours Day, Achievement assemblies and daily assemblies will also be used to affirm girls in their achievements ... Prizes will be given annually at the school Prize Giving for attainment and effort for all year groups ... The rewarding of attainment or effort within subject areas is to be encouraged ...

Assembly is an important time not only for the school to praise girls individually and collectively, but for the school to come together as a community and share in collective worship. It is a very affirming whole school event

which is quiet and dignified and challenges stereotypes, urging girls to be proud. This act symbolises much that is important for the school and which helps to create its collective ethos. The sense of community is underpinned by the school's support for individual students' physical and emotional wellbeing, which in turn is 'closely linked to their ability to learn'.

Another key focus of the school is enhancing and affirming students' selfesteem as a means of enabling them to reach their full potential. The staff handbook states that 'We seek every opportunity to affirm our students and enhance their self-esteem ... There must be an ethos which emphasizes the importance of developing self discipline and promotes confidence, a feeling of self worth and respect for each other ...'.

The staff handbook goes on to raise on numerous occasions ways in which all staff are expected to have a role in continually setting the highest possible standards and expectations. St Etheldreda's sets great store on behaviour management, stating in the staff handbook that:

It is the right of each student to be educated in an atmosphere which enables her full potential whatever that may be, to be reached. It is essential therefore that we set and accept only the highest standards of behaviour. Failure to do so will mean that we fail our students because they will not be working in an atmosphere conducive to learning.

Student perceptions and experience

Student voice comes across very strongly in the school's prospectus and the relationship between staff and students is close and respectful. The aspirations that the staff have with regard to supporting their students appear to be met:

'Although Yr 11 is stressful because of all the exam pressure, the teachers keep you going. They're continually reminding you to stay on track. Revision classes are offered every Saturday, so the teachers actively help us to take the pressure. They ease it by helping us to revise.'

'When your teacher says well done, that's it, that's enough for me. The personal touch is important. You feel cared for as an individual ... You're someone to the teachers and you want to make sure you do your best.'

(students quoted in school prospectus)

Interviews with students showed that they felt supported within school by peers and staff who they could turn to. Girls did highlight the fact that they felt under pressure to produce good quality work, but this pressure did not appear to come from the staff. Since most girls do not come from a background where their parents have been to university, if they were to go to university they would be breaking new ground and so their strong sense of ambition and self-belief was particularly impressive. Although fostered by the school, this sense appeared to also be very much self-driven. They were thinking ahead, and displayed some awareness of issues around funding further education and family support.

Students demonstrated a good knowledge of the school's awards system and showed that this was a motivational factor for them. Where they had received certificates, they kept them and showed them to their parents. They also appreciated the ICT available at the school, particularly open-access computers and the use of interactive whiteboards. Students interviewed reported that they both enjoyed and made good use of the facilities on offer, including the library, the new sports hall, and the lunchtime and after-school clubs and the possibility of staying on site to do their homework. This positive response to activities on offer is largely due to the fact that the school listened to the requests of the students in an audit of need that was carried out during Personal Social Health Education (PSHE) lessons. Additional Saturday and Easter revision sessions were requested by KS4 students; KS3 students voiced their need for expanded access to the ICT facilities and structured support for homework assignments. All these and the other requests were enacted with the result that there was a very high take-up rate of the revision sessions. Every subject offers at least one homework club a week, some of which are drop-in sessions, where individual queries are addressed, as well as other more formalised supplementary lessons. The Raising Achievement report states that:

All of the foregoing [enrichment and extension events] contributes towards raising self-esteem in very tangible ways. There is a real sense of ownership by the students, who feel that they can give their talents expression and are valued as individuals ... many of the clubs and subject specific sessions were organised in response to requests, which engenders self-esteem and the sense that students have a real stake in the school and are not only listened to, but their needs matter and are being met in practical ways.

In interviews students reported that:

'It is really good at recognising talent ... This school is exceptionally good at motivating us.'

'Here the teachers genuinely care about your dreams and aspirations so your talents are nurtured. Everyone has opportunities that will encourage and prepare them for the future.'

'I've obviously been put in the top sets for a reason, you know, I should be able to do it. And then I started, you know, working really hard and that really brought my grades up.'

Students also seem to be aware of what specific skills activities provide them with, one saving, 'The Senior Choir is not only about singing – it teaches us self-discipline too.' However, students in the extension groups did say that they would like to meet more frequently to do project work. One said that, 'you can only go as fast as the slowest person', and there appeared to be a tension between who was responsible for the students' learning – the learner or the teacher. This desire for further challenge and more clarity with respect to extension work suggests that, despite a very impressive range of extension provision, not all needs are being fully met.

Classroom practice and pedagogy

HoDs deploy staff most suitable for teaching various ability groups, and there is limited use of teaching assistants. The targeting of EiC gifted funding into classroom resources as discussed above has led to better resourced departments overall. Lessons are 50 minutes long, so teachers divide this into three or four distinct sections and the change of activity helps students' concentration.

The staff handbook states that the school aims to stimulate critical thinking by ensuring that students challenge accepted ideas as well as their own ideas, to recognise diverse learning styles, to motivate learners, and to allow for spontaneity and self-expression. It goes on to say that lesson planning should reflect that there are a variety of intelligences and forms of learning and therefore should include a variety of learning strategies.

Examples of effective teaching and learning were observed in the school. An observation of an accelerated mathematics lesson with 28 Year 10 students demonstrated pace, challenge and motivating teaching methods, with the teacher using a smart notebook. The lesson opener was two equations that the students worked on individually without calculators. The teacher set very clear objectives and challenged students to talk through their solutions. Questions were challenging and there was the expectation that students would get the answers right. Frequent reference to examination success was made. Twentyfive minutes into the lesson, there was an activity change as a new topic was introduced from a textbook. The teacher continued to ask students if they understood the concepts throughout the lesson. Students helped each other and were involved in marking their own homework. In spite of the size of the group, all the students were on task. This displayed a strong and purposeful learning and thinking environment.

Another observation of a further Year 11 mathematics lesson, with a smaller group of 12 students, demonstrated a very fast pace. There was a warm-up exercise to encourage students into a mathematical mode of thinking. Questions in the lesson probed understanding and sought explanations and greater clarity from the students themselves. There was a strong sense of personal relationships; the teacher clearly knew the students well and was constantly focusing them and maintaining a high level of challenge. There was evidence of extension

work and challenge for the more able students with further work on the board while the teacher was checking individuals' work. Laminated posters around the classroom had quotes about aspirations, learning and expected behaviour.

A Year 9 history revision lesson demonstrated very clear feedback with regard to grading and challenge. This revision lesson was focused on ensuring that students were familiar with special terminology and examination technique. They were set the task of planning an essay. The classroom had superb visual displays of trips and projects, and again presented homilies and aspirational quotations from famous people, including male and female role models.

Other lessons, including an English lesson and a sociology lesson, showed a very high level of conceptual understanding and a highly creative response to the task by girls involved. A common feature of lesson observations was a very positive and engaged exchange between the teacher, who clearly had high expectations and set a challenging pace. Open-ended questioning which probed meaning and understanding, problem-solving, and the unpicking of difficult concepts through collaborative discussion featured across the curriculum. Lesson observations showed that there was mainly whole class teaching with students sitting in rows, which is not ideal if over utilised, however a challenging pace, motivating teaching, mixed methods and an environment of praise and reward appeared to counter any potentially demotivating aspects of this.

The 2002 OFSTED report endorsed the high quality teaching that was observed:

Teaching is very good. Staff have high expectations of what students can achieve, they provide challenge and encourage independent learning ... Students achieve particularly well in tests and examinations because of very good teaching and systematic, rigorous and comprehensive preparation and support.

The school's gifted and talented coordinator believes that the emphasis in the school on gifted provision has made an impact on classroom teaching more widely, as well as having influenced the KS2 strategy.

Curriculum planning and development

The link between the individual departmental coordinators responsible for planning pedagogy within their subject areas and the gifted and talented coordinator makes for an environment where 'teaching and learning for all are more carefully considered, which leads to better teaching for all', in the words of the gifted and talented coordinator. Curriculum coordinators' meetings, for instance, are an opportunity for staff to share information about the gifted learners. The OFSTED report states that 'The school has developed an extensive system for the collection, analysis and dissemination of information about students' attainments and achievements. This helps teachers and students set

targets and identify what needs to be done to improve.'

The school carries out a great amount of data-tracking and evaluation of results and the SMT targets certain areas every year. Tracking and monitoring of the gifted cohort is therefore part of the whole school system and they receive feedback as and when other students do. Participation in extra-curricular activities is tracked throughout students' careers and reported to parents. The staff handbook states that 'Student planners are to be used to record a wide variety of targets and achievements and to facilitate constructive communication between home and school.'

Students interviewed supported the fact that planning meetings held twice a year are about target-setting by both the student and the teacher (usually their form tutor), which is then recorded in the student planners, so that it can be reviewed at the next meeting. Target-setting is done with specific information that the member of staff brings to the meeting. Students appeared to be motivated by their teachers and did not suggest that peer pressure prevented them from aspiring or achieving highly.

The school development plan emphasises the role of extra curricular activities in raising self-esteem and consolidating learning. The school prides itself on providing a wide range of extra-curricular activities. The 2002 OFSTED report states that 'A particular strength of the curriculum is the richness and diversity of provision to meet the needs of all students. The school knows its students very well and promotes their individual welfare.'

These include enrichment activities which take place during lunch hours and after school. These could be subject-based in an environment for providing additional learning opportunities for students who are enthusiastic about a particular subject. Alternatively, they could centre around activities which would enhance cognitive skills and reasoning ability in general to introduce students to new and challenging learning experiences. These include:

- Latin, Japanese and Portuguese, with early entry GCSEs. All of these activities are demonstrating good take-up and good examination results;
- chess, photography, dance, sports clubs, a gospel choir;
- a range of special internal and external projects and participation in oneoff projects such as London Talent 2004.

A number of events have been organised with St Etheldreda's partnership schools including, for example, thinking skills conferences, theatre visits, music and dance events. The school has seen a strong impact in the uptake of drama GCSE by those students who attended a drama summer school. It is an important part of the school's belief in providing a wide range of enrichment activities that these are accessible to as many of their students as possible, as this fits with the school's ethos discussed above. As a result, opportunities are offered to top sets, but volunteers are also sought from among the rest of the school to join in the activities.

Extension activities include after-school and weekend revision classes, mainly for Year 11 students. Again some students are targeted but the sessions are not exclusive. A programme of mentoring for gifted and talented students has also taken place, which included group review and motivational sessions with individual members of staff. These are supernumerary part-time members of staff who are nominated to mentor students. As the *Raising Achievement* report notes, 'The close mentoring and focus on targets means that students are clear about the aim of raising aspirations and the strategies they will need to employ to reach their goals.'

The whole notion of gifted and talented extra-curricular provision is so firmly embedded in the school that a range of staff are running activities, even new and part-time staff, and student uptake is good.

Distinctive features

St Etheldreda's is particularly notable for its pastoral care and its strong collective ethos and almost family-like community, which pervades much of what happens in the day-to-day life of the school. Its Christian values underpin the school ethos, which appears to confer on each girl a strong sense of belonging to a community with clear values and goals. This school culture has been fostered as a result of the context in which it operates, which is one where relative social disadvantage means that it cannot be taken for granted that education is prized and that expectations, even for the able, will involve Higher Education. A very clear and strong leadership team in the school therefore models the values and aspirations that it hopes to confer on its students. A key feature is their belief in building self-esteem, which clears the pathway for effective learning for all girls, and this is supported by a strong culture of rewarding and celebrating achievement, which was certainly much in evidence.

The use of Advanced Skills Teachers (ASTs) to model effective pedagogical practices at classroom level is a decisive move to improve teaching across the board, and lesson observations demonstrated aspects of good practice, such as pace, challenge, and open-ended research-based tasks. The gifted and talented coordinator stated that the gifted and talented agenda has raised achievement across the school and this is supported by the rapid rise in achievement levels of the students. The school is also clear that its provision for the gifted cohort should be open to all students, so as not to be divisive, and the gifted and talented register is not made public. This approach is supported by the good take-up of the enrichment and extension activities by 20 per cent of students, and fits with the school's value system around a belief in the gifts and talents of all its students. This approach would therefore appear to support the theory that raising the aspirations of the school through gifted and talented provision, when done in a non-divisive way and supported and structured by a strong school leadership, raises the aspirations and therefore the achievement levels of the whole school.

Case study 3

Gifted and talented education in a rural comprehensive

Background information

Stanwell School opened in purpose-built accommodation in 1978 and in 1982 became fully comprehensive. It is a mixed comprehensive school for students aged 11–16 years, serving a city in the South West. It is over-subscribed every year and has a rising roll that matches the city's expansion. The school has been designated a Specialist Science College. It is a Leading Edge school for innovative practice and has a Sportsmark Award and a gold level award in Arts. It is also the Lead School for a partnership Secondary School-Centred Initial Teacher Training (SCITT) scheme, where the collaborative group graduates 50 student teachers every year. As a result Stanwell School, along with its partners, has been designated a Training School. Recently Stanwell School was awarded Investors in People (IIP) status with a report that described it as one of the best institutions assessed. An excellent OFSTED report in April 2002 stated that the school was 'the best school we have inspected in nine and a half years'. The school has a close working relationship with local sixth form colleges and also works closely with two separate clusters. It is keen to share practice and open up discussion with local schools.

There are 1,192 students on the roll of whom only five are from ethnic minority backgrounds, none having English as an additional language. Fourteen per cent of the school's students have SEN (below the national average), of whom 4 per cent have a statement of SEN, which is above the national average. School standards are well above the national average. Examination results (KS3 and KS4) have risen steadily over the last five years, resulting in the school being named in the top 50 comprehensive schools in the country over the past two years. The gap between the achievement of boys and girls is narrower than nationally and 99 per cent of students taking GCSEs in 2003 received five A*–C grades.

Gifted and talented policy

Stanwell School's website provides an overview of the gifted and talented education at the school and states that 'After a long period of discussion, Stanwell

School has interpreted "Gifted and Talented" broadly. This has ensured that we seek and capture as many different ways in which students excel as possible.'

The approach adopted at the school is therefore inclusive and aims to be transparent. There is concern expressed, born of lengthy discussion among staff prior to creating the school policy, to handle the identification and labelling of students as sensitively as possible. Gifted and talented provision came into focus in 2002, through a variety of initiatives including links with local schools, and providing students with access to specialist activities and national initiatives. Following the initial discussion phase, the school policy is defined by its concern with a holistic approach to individual development, not only with academic success, but also with transferable skills and the social development of the students as the social, academic and business leaders of the future.

The application of the policy is monitored by heads of faculty and heads of Year and able students themselves are also interviewed about their experience of the curriculum. Good practice with respect to gifted and talented students is disseminated throughout the school through twilight training sessions and school publications. Information on the school's able student policy forms part of an induction programme for new staff. As a result, the profile of gifted and talented students is now much higher in the school and there have been three focused staff training sessions covering:

- identification and provision attended by 12 teachers and teaching assistants including a representative from each faculty for gifted and talented;
- differentiation and writing workshops/resources with exemplar material, producing a document of the top ten tips for meeting the needs of gifted and talented children;
- academic target setting and monitoring.

The school's able student policy states that identification is based on objective data and a checklist of characteristics which could be indicative of exceptional ability. The policy also refers to a subject-specific checklist. Each subject faculty at the school has a member of staff responsible for coordinating the process of identification and implementing policy within the faculty and teacher input into the identification process is considered to be very important. Students are identified within their first term using the NAGTY identification criteria, or if not, within their first academic year, and all students are re-assessed when new evidence becomes available. The school has said that they would not want to see any child removed from the register, and in line with this view was seeking to implement a policy where students who are identified by feeder primary schools as gifted and talented are automatically recognised as such after transfer. This is despite the fact that there was concern expressed by the headteacher that identification of gifted and talented students at primary level was not always compatible with the Stanwell School view, which is aligned to a comprehensive

ideal (coordinated through a local partnership of primary and secondary schools in the LA). The school also expressed concern about the DfES criteria for 'talent' and is at present working within a much broader conception.

All students are aware of who has been identified, as are all staff since the information appears on the school's academic database. This software is homegrown and feeds into the school's reporting system. Student tracking and monitoring takes place twice a year. Academic reviews, where form tutors assess background data, currently only happen in Years 10 and 11, but there are plans to timetable this for the whole school so that each student has half an hour every term with their tutor in front of the academic database setting targets. The gifted and talented coordinator had wanted a specialist gifted and talented team, rather than normal personal tutors to do this for the gifted register, but this has not happened, although the academic database does flag up which students are on the gifted and talented register, so that information is properly shared across the teaching staff.

The school uses staff mentors to support the needs of gifted and talented students, and new mentors receive professional development training to fulfil this role. They help students to aim for and reach academic targets and carry out work reviews. Each student has a school planner in which there are details of school work and home work, rewards, and other information such as useful websites. There is also a homework timetable. The policy states that extension activities are to be included in all schemes of work and lesson plans. Where students are grouped by attainment, work is differentiated to ensure that gifted students receive additional challenge.

Leadership and management

The gifted and talented coordinator

The able student policy states that the gifted and talented coordinator will help to develop extension opportunities for students on the register and implement the policy, described above. The school's current gifted and talented coordinator is a long-serving member of staff at the school and is also an AST, providing him with 20 per cent non-contact time to carry out his additional roles. He feels very well supported by the SMT and teaching colleagues and feels that the staff are very receptive to new teaching ideas, although he thinks that there could be improvements with respect to differentiation. Each faculty also has a gifted and talented contact to maintain the profile of gifted and talented work at subject level, and the coordinator alerts these staff to forthcoming events and courses. The foregrounding of gifted and talented work in this way ensures a medium for sharing good practice throughout the school.

The gifted and talented coordinator, along with the SMT and subject heads, is responsible for disseminating internal funding earmarked for gifted and talented activity, but he judged it insufficient to meet the needs of all the

requests that are made for meeting the cost of additional out-of-hours activities. The school's gifted and talented activity is self-funded or grown organically and not reliant on external sources of funding. Despite this and the perceived concerns of under-funding, money has been well spent and has targeted a lot of additional support. The NAGTY Ambassador School grant is being used in part to take a humanities day off-timetable and in conjunction with other local teachers, to look at the issue of identification, drawing up faculty-based, subject-specific criteria. It has also been used to purchase the NACE thinking skills materials and other resources. Funding is targeted at 'self-sustaining systems' with a programmatic approach, rather than one-off activities.

Senior management

An OFSTED inspection in 2002 evaluated the leadership and management of the SMT as excellent: 'The positive ethos of the school, with learning at its heart, stems from excellent leadership ... the school has a clear vision of where it is going next.' The SMT has a three-year development plan, the priority of which is to 'promote a socially inclusive ethos, fully implementing policy into practice.'

Lesson planning was reviewed in order to ensure that lessons were clearly responsive to student diversity. There are also plans to continue to develop Stanwell School as a Training School, with distance education courses, a Training School website, continued expansion of the ITT programme, and development of professional development for staff, and gifted and talented activities will fall within these areas.

The deputy headteacher recapped on how successful the partnership with local primary and secondary schools has been over its two-and-a-half years, with Stanwell taking the lead, raising the profile of gifted and talented in a transparent way. At school level, Stanwell's identification as an Ambassador School by NAGTY has galvanised activity and made staff more aware of the need for extension and enrichment. However, according to the deputy headteacher, there is a sense in which the school as a whole is uncomfortable with the 'gifted' concept and the profile of gifted and talented is therefore still not yet consistent across the school.

Governors

The school governors' presence appeared to be fairly low-key in and around the school, although their relationship with the school seems to be good and meetings are well attended. The governors do not wish to be perceived as interfering but they remain a supportive and useful presence. There is agreement among the governors that it is important to nurture the more able pupils, but there was also an acknowledgement that this is left largely to the headteacher and that the governors' knowledge of gifted and talented issues is not at the same

level as it is for SEN, for instance. The route for staff feedback reaching the governors is initially the weekly faculty meeting, then the middle management meeting, and on to the SMT which speaks directly with the governors.

One of the teacher governors interviewed was very much of the view that what works well in classroom practice does so for all children, at both ends of the ability spectrum, and that any classroom policy or practice should in turn be based on a strong culture and ethos of respect for teaching staff. Equally the view was expressed that if students felt what they were doing was being valued, they would be more willing to go one step further: 'you have to build self-esteem.' However, it was underlined that the school did a lot of chasing of students and there was a general sense of not letting poor work go: 'everything needs to be followed up ... it's no good just leaving things because that's when standards slip.' Following on from this, the governor stated that one-to-one time with a member of staff was very important to students and in this spirit they had started using mentoring in school and were also looking to carry out individual academic reviews with each student. The governor underlined the difficult discussions that took place within the school with respect to formulating the policy and creating a gifted and talented register. He stated that one of the core values of the school was its fairness and that there were clear guidelines so that students would know what to expect and could feel secure, and these are gently but firmly inculcated in the students from Year 7: 'So your Head of Year and your pastoral system are constantly reinforcing through the tutors, then into the tutor group that these are what we value. So it's those teams working together ... all giving the same sorts of messages.'

School environment, ethos and culture

In 2002, OFSTED reported that:

- Students achieve well because of the school's very good teaching, and because of the excellent relationships between all members of the school community.
- The students' specific needs are met very well.
- The positive ethos of the school, with learning at its heart, stems from excellent leadership.

These elements underpin much of what creates the school's success. There is a particularly strong focus across the school on students as individuals, with the school's mission statement reading as follows: 'To create and sustain a caring, learning school community of high quality where everyone is valued for who they are and for what they might become.' Hence the inclusive and individual approach to gifted and talented provision is stressed, as is the fact that it is also about raising the aspirations of all students. With respect to the school's environment, it states the following aims:

- To provide a lively and enthusiastic atmosphere in which a love of learning and a questioning approach to life may be stimulated.
- To highlight and to develop those standards which society finds estimable, establishing an ethos in which they are modelled as well as taught.

The school has very good facilities, comprising of large purpose-built accommodation situated in 50 acres of landscaped grounds, a floodlit all-weather sports surface, sports hall, gymnasium and climbing wall, as well as nine pitches for additional sports. There are also excellent music and drama facilities. However, the school currently accommodates almost double the number of students that it was built for, so space is a very real concern, especially at lunchtime, since the dining hall is inadequate. It is also in need of some updating and redecorating. The overall school environment feels informal but with a strong working culture nonetheless, evidenced by the use of the work areas and the purposeful atmosphere in teaching areas. The entrance hall and corridors are welcoming, with artwork and certificates celebrating school and individual achievement, and a plasma screen is positioned centrally. Students were observed looking at it as they came in, pleased to see themselves at the previous week's Book Week. Faculty notice boards also contain a lot of student work. The Learning Portal is a standard shared area for staff and students which can now also be accessed remotely. Students can see their teachers' PowerPoint presentations, slides or lesson notes. The computers are available for students' supervised use during lunchtime and after school until 4.30 pm (the last lesson ends at 3.05 pm), but access is limited, due to space and the fixed number of machines available.

Students are placed in a tutor group when they start at the school and remain in this throughout their school career. Each Year group has a Head of Year, who has pastoral responsibility and works closely with the SMT. The parents of students automatically become members of the Association of Parents and Friends of Stanwell School. The school also has strong community links and makes its facilities available to the local community. There is a clear antibullying policy at the school and a code of behaviour with high expectations of its students' behaviour, stating that:

Children find pleasure in being esteemed and valued, especially by their parents and those whom they depend upon. These concepts are embedded in our school's mission statement and rewards, as a part of our Behaviour Management Policy, and have a large part to play when it comes to regulating behaviour – either social or academic ... Positive letters home from members of staff concerning merits gained, excellent interim reports and sustained good work are an example of this.

The reward system is strong and works as follows: merits are recorded in the back of the students' planners and certificates are presented to the students each

time they receive 20 merit marks, followed by a badge when 60 are gained, and a book token when 120 are gained. In Year 11 all students have the opportunity to be prefects. A record of achievement enables all students to record their successes when these are not evaluated by formal examinations and parents are informed about students' progress termly. Each summer term there is an annual prize day when subject prizes, community service and school-wide prizes are awarded. In addition, the school celebrates achievement at Year assemblies and presentation assemblies and uses its house system, library, plasma screen and entrance area to highlight achievement. However, the culture is one of celebrating the success of an individual holistically, and is less focused on grades or league tables. There is a new initiative to enable parents and students to access the school website and check individual pupil performance, as well as materials relating to lessons, homework and examinations.

All these factors contribute to the creation of a secure school environment which, despite being over-full, creates a culture which recognises and supports each individual in their entirety and which clearly contributes to an environment where gifted and talented provision is taken seriously.

Student perceptions and experience

The students interviewed unanimously endorsed the school's statements about the importance of their relaxed and supportive staff-student relationship, one saying, 'there are lots of good things really I suppose, the way that the teachers don't talk down to you, they try and talk to you on your level ...'. Students made it quite clear that teachers were readily available outside of lessons to support them by sparing extra time to review work or concentrate on areas of difficulty. They found lessons interesting and enjoyed the activities that were involved, one saying, 'teachers make it better by having some sort of activity to do that's not just writing and listening.' Teaching methods which involved visual displays or presentations were popular, as were those that asked the students to teach their peers as a means of consolidating work.

Students generally spoke positively about a culture which encouraged them to try and achieve well but without excessive pressure, a culture in which success was generally a good thing among their peers. One student spoke about her pre-examination nerves and how a teacher had helped her with some relaxation techniques. All the students were clear that the rewards system was a fair one, not targeting the same people all the time, one saying, 'the teachers tend to give them if you've gone to *your* highest standard, not to *the* highest standard.' It is also clear that when rewards are given out, all the teachers involved with that student know about it, as they are signed off in the students' planners, and parents receive a letter telling them when their child should be recommended. Equally, the students are clear about what their individual targets are, one saying, 'Every time my course work is handed in and marked the teachers will tell you whether you're working towards the grade or not.' The students all stated

that they valued the rewards system, particularly the certificates which they could take home and keep.

Students seemed happy with access to equipment, the library and ICT facilities, endorsing the systems that the school had in place for prefects to manage the computer facilities. The library is available to different Year groups at different times of the day, examination groups having priority. Students liked the school's intranet and recently improved ICT network, allowing them to access school information and their e-mail accounts from home. They were also quick to praise some of the newer acquisitions the school has made, such as the AstroTurf, and they were very keen on the electronic whiteboards.

One barrier to becoming involved in the school's extra-curricular activities is logistical, as the school bus leaves after the last lesson each day and this is when most of the additional activities take place. Since the school has a large rural catchment with many students living some distance away, attendance at extra-curricular events is dependent upon their being able to get home.

Other concerns raised by students were the desire for smaller classes, but this is obviously an issue not unique to this school, and homework, since despite having the homework timetable, students could find themselves over-loaded some evenings. Of particular concern, with respect to gifted and talented students, is access to the extra-curricular activities and opportunities for accessing individual staff time, given the large class sizes. The latter of these issues is handled well by the school, with teachers making themselves available to students.

Classroom practice and pedagogy

The 2002 OFSTED report states that:

The biggest factor in promoting effective learning is the excellent expectations that staff have of students. As a result, the pace of learning is very good, students show excellent effort in the classroom, and they acquire knowledge, understanding and skills at a very good rate.

This strong relationship between staff and students was observed on our tour of the school. There was also a lot of use of the interactive whiteboards and PowerPoint presentations and evidence of excellent classroom practice. The teacher governor interviewed said that students were asked for their feedback about the quality of lessons in order to find out what was valued and perceived to be most useful. He also said that there was a long tradition of the school reflecting on its pedagogy and aiming to improve it.

A new initiative is a dedicated school learning team involving all ASTs, including the current gifted and talented coordinator, who are funded by the LA and work alongside heads of faculty. They all have an 80 per cent teaching timetable in order to devote time to research development/networking/in-reach

and outreach work, but are particularly concerned with classroom practice, as a school learning team paper reveals:

The Learning Team will work alongside staff in an advisory capacity to help develop skills and expertise focused upon teaching and learning, primarily of teachers but also of Teacher Assistants ... it will also develop and model strategies of effective teaching and learning for the whole age and ability range, probably by utilising a personalised learning approach.

The team spent a day working together considering how they would drive forward new initiatives around teaching and learning; behaviour for learning; coaching/mentoring/personal development; and community partnerships, and they are each leading a professional development session in school. One development session asked each member of staff to bring practical examples of who they would provide gifted and talented material and teaching for in a particular lesson. This not only generated ideas, but raised awareness of gifted and talented students in school and encouraged greater creativity.

Faculty heads decide on the academic groupings in each year, the principle being to facilitate the most efficient learning and these groups vary from subject to subject. However the school is committed to teaching in mixed-ability groups in most subjects throughout KS3 and KS4, using other methods of differentiation in teaching, while students are set by attainment in mathematics and science as part of the school's being designated a Specialist Science College. Students are set into ability groups for these two subjects early in Year 7. Teaching assistants are widely used throughout the school and a school learning centre.

The school day consists of five one-hour periods starting at 8.40 am and finishing at 3.05 pm. Specific examples of effective classroom practice which were observed are detailed below:

- There is an eclectic approach to teaching and learning with no formulaic rules outside of an acknowledgement of some basic examples of good practice, such as engaging the students in active learning for some of the lesson exemplar material is used to raise the level of work overall. Work is very much at individual lesson level utilising mixed teaching styles.
- There was widespread use of interactive whiteboards and PowerPoint presentations which brought lessons to life. Students could get further information from the visual multi-media, for instance returning to lesson plans or notes in their own time.
- A Year 7 science lesson was observed with a good technique for quickly
 assessing the understanding of the whole class at the start by asking for
 thumbs up/down and then asking why. A practical activity engaged students at different levels of ability because of an emphasis on thinking/
 problem-solving. Students did not have to do much writing or copying

- the emphasis was on doing. It was also easy to identify more able children who had moved away from the worksheet to construct their own more complex/sophisticated model of the experiment, as the task was openended, enabling students to move to whatever level they chose. Clear aims were presented to the whole class with instructions on the generic task and then the students were given the opportunity to move to different levels of difficulty. The aims were revisited in the plenary. The teacher-student rapport was excellent, with clear evidence that the teacher knew the students well.
- An express mathematics group lesson was observed, where a small group
 was working within a challenging environment, with problem-solving,
 thinking skills, working out and finding shortcuts. One highly able child
 in the group who also had severe physical disabilities was fully engaged
 and motivated.

The teacher governor spoke about the importance of knowing students well when working with mixed-ability groups, since this enabled teachers to get the best from them and group them in ways that would support their learning within a lesson, depending not just on ability, but also on personality:

'I think sometimes you'll want maybe all the gifted children and the very able to work together or, sometimes you'll want a bit of a mix and match, and sometimes you'll want different personalities because sometimes gifted and able children are very quiet and very insecure about working in a group or team work.'

Group work was used well and imaginatively. A lesson of variable quality was also observed, highlighting the problem of differing levels of expertise across subject areas and between different teachers, and the challenge of standardising good practice. It has been suggested that a portfolio of work completed by exceptionally able students should be developed by the school both to raise teachers' awareness of levels outside the normal parameters and for students to be inspired by models of excellence – the emphasis being on core subjects.

Curriculum planning and development

The curriculum is not in itself very innovative, but it does offer breadth and is inclusive. Students found to be able in languages have an opportunity to take a second language in Years 8 and 9. All students are able to enter for a GCSE if they have done the coursework, regardless of their predicted result, as the focus is not predominantly on grades achieved. The school is also considering an accelerated KS3 curriculum over two years for some students. There is a focus on thinking skills and creativity in the curriculum, which contributes to the strong teaching that was observed. Extension and enrichment activities are

particularly good and off-site activity is used well to broaden the curriculum. There is a whole school commitment to international work, which is reflected in the school's curriculum. The school has links with a boys' school in New Zealand and a South African township school in Cape Town.

Extension and enrichment activities offered include:

- master classes in maths, science and modern foreign languages;
- accelerated groups;
- breadth in the National Curriculum, such as through the provision of three sciences and a wider choice of subjects at GCSE level (including some offsite programmes such as Critical Thinking and Spanish at a local Further Education [FE] College);
- beginning AS maths in Year 11;
- leadership initiative the school is very keen to promote vocational training suited to local needs, e.g. horticulture;
- European Social Fund the school co-finances a business-based entrepreneurial project involving work-based learning, and is looking for students, particularly those on the gifted and talented register, to achieve accreditation as they go along;
- extra-curricular activities including a wide range of clubs and societies;
- special projects in art that develop creative partnerships with artists in residence, which will be evaluated by students;
- peer mentoring training for older students to provide mentoring for vounger students.

Depending on the activity, students who are not on the gifted and talented register are offered the opportunity of participating. Details of extension opportunities are included in all schemes of work and lesson plans. The school found that special projects and master classes have helped to develop in non-gifted and talented students a greater interest in the subject area, in turn contributing to raised aspirations across the board. There has also been an increase in the number of students being entered for higher-level papers in mathematics, science and English, which reflects the focus on raising aspirations and increased challenge.

Distinctive features

Work done on gifted and talented education particularly over the past few years has changed attitudes towards gifted and talented among most of the teachers, students and parents, and the inclusive approach has contributed to the explicit focus on ensuring breadth and depth in the curriculum for all students. The broad definition of gifted and talented has been an important factor in ensuring a sensitive approach and this appears to have been beneficial for students. The relationship between staff and students has to be one of the most positive aspects, and it is this that seems to provide the foundation for their inclusive ethos, which in turn is at the heart of their gifted and talented work. This has contributed to a non-competitive and supportive environment where academic success is prized, but where a holistic view of the individual also exists.

As a training school and a leading school locally, the prioritising of developing and disseminating excellence in teaching and learning with a focus on provision for more able students is particularly distinctive. The introduction of a team of ASTs and the gifted and talented coordinator to work alongside department heads, both within Stanwell and across other local partnerships, raises the profile of teaching and learning generally and provides an explicit mechanism for the effective modelling and sharing of good practice and understanding. This is exemplary and demonstrates ways in which secondary and primary schools can work together to negotiate differences in approaches to gifted and talented students within their catchments, both in terms of identification and provision.

The gifted and talented coordinator clearly has a vision for more concerted training and professional development opportunities on gifted and talented education within the school. He also envisages greater collaboration with the school council and the use of student voice to lever change. In addition, continued dialogue with parents over what it means to have a gifted or talented child, and how the school is best able to support them, is a fundamental part of provision.

Case study 4

Personalisation and gifted and talented provision in a sixth form college

Background information

Brook Street College is in a university town and in 2006 catered for 1,730 full-time students aged 16–19. There were also over 1,000 part-time adult students enrolled in a wide range of part-time courses.

The college is over-subscribed and has been consistently rated very highly by both of the government's external quality assessment agencies (OFSTED and the Learning and Skills Council [LSC]). The LSC rated the college 'Excellent' in 2004–2005 and 2005–2006. In 2001 the college was inspected by OFSTED and was awarded the highest grades possible for the quality of teaching and learning in all ten subject departments, and for the quality of its leadership and management. This was no flash in the pan; the OFSTED report some four years previously also rated it as outstanding, and in November 2005 a subject inspection of history re-affirmed the outstanding grade for the subject. On all other performance indicators (e.g. retention and completion rates, examination grades), the college significantly performs above the relevant national averages. The college therefore has been judged over a long period to embody the highest quality leadership and the highest quality of teaching and learning.

In this case study, the emphasis is upon 'personalised' learning, a concept defined by the DfES as comprising five elements. These are: assessment for learning; teaching and learning strategies that stretch pupils; curriculum entitlement and choice; student-centred organisation; partnership beyond the school (DfES 2005).

College leadership: values and ethos

The college has a charter reflecting the values underlying membership of the college, which specifies student entitlement and obligations, and a mission statement articulating its values. The charter states the mission as: 'To provide an education distinguished by opportunity, quality and achievement for all our students within a caring college community.' The values underlying the mission were expressed in the college's strategic plan, which is to promote and sustain:

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- Equality of opportunity;
- A climate of partnership and mutual respect;
- Individual responsibility for learning;
- Personal and social development;
- Caring and responsive support and guidance;
- A spirit of critical enquiry;
- An enjoyable, challenging and stimulating environment;
- High expectations and the pursuit of excellence;
- Open and honest communication;
- A positive and enterprising attitude.

There was a conscious elaboration of the commitment to equality of opportunity in the charter:

We are committed to ensuring that all members of, and visitors to, the college enjoy equality of opportunity within our community. All students, staff and visitors are to be respected and valued equally. Factors such as gender, race, disability, class, culture, religion and sexuality should not limit equality of access to the opportunities offered by the college. Any form of harassment or bullying, sexual, racial or otherwise, is totally unacceptable in the college community.

The charter also outlined students' entitlement by specifying the provision they could expect of college staff, including the range of support for learning, regular assessment of students' work which is marked within a given time, well-qualified teachers and support staff, and representation though the student council.

In return, expectations of students and parents were laid out. For students these included taking responsibility for their own learning, showing respect for others, and abiding by college policies and expectations for equality and diversity, health and safety, smoking, alcohol and illegal drugs, dress and appearance and maintaining good standards of behaviour.

The above values relate inward, to the life of the college members, but the charter illustrates an outward face of the college also, emphasising the importance attached to contributing to the wider community and inviting collaboration from it.

Realising the values in practice

Written statements of mission and values sometimes attract the criticism that they may reflect the views of the organisation's leaders only, or that they are tokenistic, in that they do not reflect the lived experience of ordinary members, or that once written they fade from the collective consciousness and cease to be influential on the working of the organisation.

The college had made substantive efforts to ensure that these difficulties were overcome. First, the values and mission statements were negotiated with staff, governors, students and other stakeholders, not simply handed down. Secondly, students were required to sign up to the value system when they were admitted, a procedure that both alerts them to the value system and makes public the accountability of the college staff to adhere to them. Thus the values become routinised into the working practices of the organisation.

Moreover, the college had a formal review of its values and ethos, led by the principal but involving all categories of staff and students, and leading to the display of the values around the college. In interview, the principal outlined what the values and underlying ethos were, and how they had been incorporated into the life of the college. He also articulated how identifying a particular group of students as gifted would sit uneasily with the college's ethos and values.

'We don't differentiate or plan for a particular group of students with the label "gifted and talented". I don't think there would be any disagreement, or any debate in the college about this ... identifying a group in that way would run counter to what we are trying to achieve here ... It sits uneasily with our whole college approach, which is to make sure that students are valued individually rather than for a group label ... Even though the labelling process may have a very positive impact on the students who are labelled gifted, it's the impact on other students and the impact on the ability of the institution as a whole to speak to all students and to convey a message to them, to make clear to them that they all have potential ... Let me give you an example. We run Advanced Extension Award (AEA) classes here, but we don't select students for them. We simply make clear that the classes are available for anyone who is interested in the subject. We make clear what is involved and students then decide, with advice and guidance from their tutor perhaps, whether that is what they want to do. Of course we have the probable Oxbridge applicants in these classes but we also have other students, and some of them take the class because of their interest in the subject but don't necessarily take the exam. This attitude does feed down into the department, say in history where the department says if you're interested in history at this level then you can take the AEA class, and it feeds down into the classroom as well. If you labelled them as for the gifted, or some of the students as gifted you'd be saying something else, something different to the students as a whole ...'

When asked what the point of the gifted and talented label then was, he responded:

'Good question! Not sure that I can answer it! But my answer would be something like this. If you want the organisation to work to good effect,

then I'm not convinced that this label helps ... I'd question its value, working backwards from the students. In the end it's to do with the values and ethos of the institution, and they reflect a commitment to inclusion, or inclusiveness, to setting high expectations for everyone, with a focus on each student's talents and that means setting high standards across the board – in terms of learning, and behaviour, and in the environment. All these elements transmit messages about expectations. If the physical environment doesn't imply that someone cares about its quality, or if inappropriate behaviour is tolerated, or if learning is not happening at the highest level it should, then the messages to students become very clear. Students quickly understand issues about standards, from whichever angle, they must experience consistently high expectations and levels of support ... But the high expectations are for everyone – on yourself, your colleagues and the students, and we all need strong levels of support to fulfil the expectations. That commitment, that ethos of expectations and support across the institution – if you can articulate it in a set of values in terms we are all familiar with - that will feed into everything we do, and be reinforced in the way we work ... and if you can do that, you don't need gifted and talented labels ... So that's why I said it runs counter to our ethos, or sits uneasily with what we are trying to do.'

From the point of view of provision for gifted and talented students, the inclusivity commitment has had a direct impact on the way provision is made. Both the principal and the deputy principal affirmed that they were uneasy about identifying a discrete group of students to whom this label attached.

The circulation of values

There were three means by which the values and ethos reported above became embedded in the practice of the college. These were: the use of data to improve teaching and learning; partnership beyond the college to encourage wider schooling; and, pedagogies to personalise learning. For purposes of analysis, these are treated separately, but in practice they are not discrete elements but interact to support and reinforce the value system.

The use of data to improve learning

The college developed a highly systematised annual cycle of data collection, analysis and management as a fundamental part of its self-evaluation process. The purpose of the self-assessment processes were to:

- monitor performance to raise awareness of strengths, weaknesses and issues;
- promote continuous improvement;

- inform planning, decision-making and target-setting;
- facilitate the targeted use of resources;
- provide evidence for external bodies (especially LSC and OFSTED).

These processes build on reports from teaching departments, on cross-college self-assessment and on consultation with staff, governors and the LSC, and the self-assessment is based on evidence, collected in the college and published as appendices to the self-assessment report.

Central to this process is the teaching department report (TDR), which is designed to be collegial, in the sense that it is collectively generated by all those in the department, and becomes a publicly available document to all staff, not just those in the particular department. This could be a system that lays a heavy bureaucratic workload on all staff, but the role of the departmental staff is to interpret and respond to the data provided to them.

The analysis of the data is carried out as a central service by an assistant principal. He explained the process in interview, as follows:

'The process has to be seen as a whole. The self-assessment is the diagnostic phase, obviously, and that leads to an assessment of strengths and weaknesses across the college and helps us to decide what the priorities should be. Not all priorities are related to strengths and weaknesses, of course – some relate to new developments that come from outside – but the thrust is that from January to April we start with the departmental process, leading into a cross-college process, where we're looking at main themes, for example looking at the implications for student support that arise from the analysis. So that links to the strategic and financial planning side as well ... One important point is that the departments do not do any of the data processing themselves. It would be an immense task and it wouldn't be using their time and skills to best effect. So here it's all done centrally – as a service to the department ... The main document is a single page, an overall summary, which is a synopsis of everything that follows in the document, and when departments are thinking of their overall self-assessment, this is their single biggest source of evidence. It's not to say that the seven columns contain every piece of information – they don't – but they do contain a mixture of quantitative and qualitative data. The quantitative are exam grades, added value, retention rates, and success rates. Qualitative data are from student surveys and direct observation of lessons.

'The function of the colour coding is important. There are four colours – blue, the highest, then green, yellow is sort of neutral and red is relative weakness. So the reds are warning bells to departments. I was very keen on this – it's been going now for ten years or so. The crucial thing that colour coding does is that heads of department and teachers can see the wood for the trees. I don't want them to dwell on individual numbers – on "Why did

John get a C instead of a B, which he got last year?" I want them to think about the strengths and weakness and the colours are there to point them in the right direction. They don't give them answers, but they do say "Well is there an important issue behind this?" ... Departments can use their discretion whether they want to see yellow as a warning sign too, if they have no reds. Clearly if there's a department – there are! – where there are no reds, they will ask themselves why there are nonetheless weaker areas on their profile, the yellows ... The data are also shown across at least a three, and often a ten-year time frame to reflect trends. If needed, staff can have the analysis by department, subject, class and individual student, with the data thus becoming available for the development of personalised learning.'

As always, the key issue about data collection and analysis is what it is used for. In this case it is absolutely focused on helping the college improve the learning by students, with the data being fed up from the departments, analysed centrally and reported upwards for accountability purposes, and being fed back into the departments for consideration, explanation and where needed, action. The data analysis process therefore is not merely an instrument for monitoring and measuring, it is a reflection of the values concerning equality, high achievement, and continuous improvement articulated in the college documents and in interviews with the staff. In management jargon, the use of data reflects the commitment of the college to being a learning organisation.

Partnerships for learning

The college has a coordinator to develop work with other partners in relation to the education of gifted and talented students. The coordinator interprets the role very flexibly, linking with a range of partners to improve the provision for the college's students but also to create opportunities for professional development of teachers and others. In interview he elaborated on this role as follows:

'I think my formal role is really to organise a range of events. For example, if you take the last year's programme, ... the sorts of activities that I was involved in have ranged from organising a series of events with Villiers Park, and so looking at the promotion of gifted and talented education through, for example, the advanced extension awards in history, the use of critical thinking, accelerated learning programmes, and the use of ICT. An ongoing project is that we have a relationship with a partner college and the project is directed at looking at good practice. So we organised a conference that was based there with its feeder schools. So we've been organising and contributing to the various forms of professional development, for ourselves and our local partners ... and actually I think one of the most effective things, that we ran last year was a conference in conjunction

with Kings College, Cambridge, which was national. At that event, I think there were about 40 different sixth form and FE centres there looking at good practice and exchanging ideas, raising awareness of different approaches and opportunities towards gifted and talented education.'

The process of appointing this coordinator and his motivation for applying for the post also reflect consistency with the college value system. As can be seen from the excerpt below, it enabled him to implement activities to stretch already high-achieving students, within the college as well as the external activities outlined above:

'The position was advertised in the college and I applied for it. In part I think for three reasons. First of all quite a reasonable amount of my professional practice has been sort of geared towards really trying to stretch the most able. I've worked with some pretty strong centres — my background is basically in the private sector — and I've worked in some very strong academic schools where a lot of time can be directed to teaching very small groups. I think what I wanted to try and do was to look at the exceptional practice I've seen being directed towards a very small number of students and to look at what could be done to widen that kind of opportunity and provision. That was one of my key aims and objectives here ... For example, the way that I approached the advanced extension awards in some respects is based on approaches to looking at how people would be given extra lessons or some tutoring with regards to entrance to the more competitive universities. So both enrichment, but extension as well.'

The role of the coordinator is Janus-like; facing outward to work with external partners, and inward to develop added value to the learning of already high-achieving students. Both aspects reflect the values identified earlier about commitment to high expectations for students combined with a community orientation.

Pedagogy for personalised learning

The descriptions below are from field notes made during direct observation of the teaching sessions. The interpretations of the purpose and practice of the pedagogy were discussed with the teachers concerned directly after the sessions, and they were in broad agreement with them. The interpretations therefore have been to a large extent co-constructed with the teachers concerned.

The English 'surgery'

The first session was a lunchtime 'surgery', voluntary for the students, who were preparing for the Advanced Extension Award in English, taken by Martina,

a senior teacher in the English department. Twelve students, three male and nine female, were in the session, though, it being lunchtime, they were joined by two others some ten minutes after the start, and one girl left halfway through. The session ran from 12.50 pm–1.50 pm, preceded by ten minutes of settling in, waiting for students to arrive, and individual conversations. Below is an analysis of the session.

12.50 pm

Martina distributes a previous examination paper, drawing attention to a specific task item relating to a definition of formalism in literature, offered in an excerpt from a literary critic. She writes the definition on the whiteboard, and identifies three aspects to analyse the definition that she wants the students to use as a framework – 'Approach, Insights, and BUTS (reservations)'.

12.55 pm

Martina sets paired/triad tasks and then visits each small group challenging individuals about their initial judgements, and they test out their responses on her. In five minutes she has worked with six individuals; in seven minutes she has worked with all of the students in the pairs/triads. The pace is fast and business-like, but unhurried; the teacher personality is quiet and unshowy.

1.03 pm

Martina calls together the whole group to share ideas. Students readily offer ideas, she accepts what they say, and turns it back to other students to comment on, then adds her ideas to it. The discourse is characterised by a gradual and collective accumulation of ideas, incorporating a readiness to challenge and be challenged. For example, one student argues: 'Formalism as defined, implies that literature is special or superior. But why, what's the justification? Why are other kinds of writing, say journalism or non-literary texts, inferior? And it would exclude non-standard language.'

This generates high-level articulation of the problems associated with intrinsic and extrinsic judgements, and how authorial intention is to be understood. The exchange then explores the effect the social and historical context of a literary work has upon its interpretation, with one student instancing the way Shakespeare's vocabulary often meant something different in his time from now. 'What's more,' another student argues, 'formalism implies a kind of stasis – that we have established all the criteria for literary excellence that our criteria are not changing.' Throughout this section of the session the students challenge each other's ideas, the teacher challenges them, and they challenge the teacher, and through this iterative process ideas are shared and constructively built upon. All students are unselfconsciously on task.

1.15 pm

Martina sets a new task for pairs/triads: 'Can you come up with an example that would disprove his point? But we need specific examples.' The groups work together on this task, with Martina intervening to trigger clearer articulation of the examples and the argument that the examples disprove the critic's point. All students are on task.

1.27 pm

There is whole class sharing of these ideas, again characterised by high-order questioning by the students of each other and by students contributing to the ideas of their peers. Again all students engage with the task.

1.35 pm-1.40 pm

Martina draws this session to a close by setting an extension task as an assignment to be completed in preparation for the next surgery, a week later, saying: 'Here is a new piece of text, which you need to read independently first of all. The task is: How does this new text take today's argument on? Give three examples from your reading. This will be the focal point for our discussion next time.'

The history lesson

The second teaching session was a modern history lesson, taken by Peter, the HoD. There were twenty-two 17-year-old students, roughly equal numbers of boys and girls, in a fairly conventional, though cramped, arrangement of a U-shaped row against two sides and the back wall of the room, so that all were facing the teacher and most could see and talk to each other without turning round. The lesson lasted from 11.35 am–12.40 pm and focused on an analysis of the Nazi state. The description below does not reflect the highly charismatic, extremely entertaining, sometimes hilarity-inducing, classroom persona of the teacher.

11.35 am

Peter explains the materials the students will be needing and the topic. He sets in outline the homework for next week, reminding them that they will be preparing for an examination conditions test. He reminds them also that they have his e-mail address and they can raise any issues or problems with him. He responds directly to two e-mail queries he has had since the last lesson. Then he sets the first task: 'You've got three labels – they're in the materials, in the text. Polycratic, Feudal, Chaos. You have to produce the examples to support the case that Nazi state was polycratic, or Feudal or Chaotic.'

11.40 am

Peter sets the task for pairs or triads, with different groups required to analyse the argument for justifying different labels. He tests individual understandings before they work in their groups. Then he says: 'OK what have you got to say about Feudal?' One student problematises the label: 'Does it work at two levels – does it work for the state? Does it work for the people? You might get different answers for each of those levels.'

Peter elaborates on the answer for the rest of the class, raising the possibility that the answers they arrive at may be too complex for a single label, but the purpose of the task was to press that questioning of the task itself — 'Test the label to destruction!' He adds: 'The same with Polycratic — What's it mean and can it be applied to help us understand the nature of the Nazi state?' One student explains what she understands by the label — different competing power groups — but has reservations about its appropriateness: 'I'm not sure that the state was polycratic, because all the power groups were dependent on Hitler's support. So it's probably Autocratic we need, not Polycratic.'

Peter says: 'So you've got reservations, very good you'll need to test them out in your group. Now Feudal – let me remind you of your Year 7 work at your secondary school – Barons. You'll all know what Feudalism is, won't you?' Then he sets them to work in pairs. All students are on task.

12.00 pm

Peter brings the class together to 'test out' the judgements the students have made, taking first the pairs who have worked on Feudal, then Chaos, then Polycratic.

Student responses are tentatively expressed but the reasons for their judgement are clearly articulated. For example, one student says: 'I don't know if I'm right but I'll try. Under feudalism the barons were the top group under the monarch, but I'm not sure that applies to Nazi Germany. The power distribution amongst the various groups wasn't as straightforward.'

'Yes,' says Peter, 'but does the concept of feudalism help explain the power distribution? You're only halfway there I think. What about Chaos?'

'I think Chaos is useful to explain the growth of anti-Semitism,' argues one student. Peter queries this: 'Is that Chaos in the sense we have used earlier, and in the text?'

'Well it would cause chaos! And it applies as well as the other two to explaining anti-Semitism', answers the student.

The pace of these and later interactive sections of the lesson is very fast, requiring students and teacher to think on their feet. In a period of ten minutes Peter has involved nine individual students, representing all but one of the pairs.

12.10 pm

Peter refers to the lecture given yesterday by a visiting professor of modern history, developing his theory of the 'dual state'. He asks: 'Can we work that into our explanations?'

12.15 pm

Peter poses the question to the whole class: 'OK you've heard ideas on all three labels. Which works best and why?' One student proposes: 'I wouldn't settle for any one idea, I'd want to use all three because they offer different, like, perspectives on the same state.' Peter pushes the student to elaborate on her approach and then re-formulates it for the class as a whole.

12.20 pm

Peter sets the individual students the task of writing down in note form the case for one, or some, or all the labels as explanations for the Nazi state. They all work on this task in silence until one student queries whether the 'Nazi state' is what they should be thinking about. Peter suggests that what he means is that it was such a unique state that they should be attempting to analyse the 'Hitler state', which might be a simpler way to analyse the system. He is challenged by a student who points out the reasons for using the Nazi state as developed in the text. She also argues that the discussion so far has ignored the role of the churches, which the text refers to. Peter responds: 'Alright, hold all those points in play and I'll need a little time to think through this, while you complete the task. But I'll retain the right to disagree with the book, and for that matter with you.' The students settle back to the writing task, in silence.

12.30 pm

Class still working in silence. Peter brings them together reminding them of the point of the lesson, that is to analyse the Nazi state. He says: 'We need two students to promote the case for a label as useful and the rest of the class to listen and evaluate it – that is weigh up the strength of the case being made.' This is done for Chaos, with some students arguing that that label is the most useful, and others taking a more multi-layered model, drawing together arguments from the text, from their paired work, from the whole class discourse and from their note taking.

12.40 pm

Lesson ends and students leave still talking about the arguments.

Pedagogy as the co-construction of knowledge

These sessions illustrated the pedagogy involved if teachers have as their primary aim the co-construction with their students of classroom knowledge in understandings, skills, and contestation of ideas; the teachers saw their role as helping students produce their ideas, and to improve them by building upon their initial ideas, and subjecting them to the scrutiny of their peers and the teacher herself/himself. This collective learning in the classroom was extended by individual activity outside it, which would then be the basis for further collective learning in the next session. Three points about this approach need further articulation.

I. The teachers identified four conditions for this kind of pedagogy

First, they themselves needed very high levels of subject expertise, since they were not engaged in individualising learning – letting individual students generate their own ideas, as might happen under some interpretations of 'progressivism' or 'student-centred' learning. The teacher needs such a high level of subject expertise to bring to bear upon the students' ideas so that s/he can respond authoritatively and spontaneously to their ideas and help take them further.

Second, the teachers could assume, because of the college's ethos and value system, high levels of on-task behaviour and student self-motivation. Participation in, and commitment to, learning was a given and illustrates the way whole school values influenced pedagogy.

Third, the value assumption that knowledge is tentative, contestable and revisable permeates the classroom pedagogy. This is not 'instruction' nor is it the 'whole class interactive teaching', since the knowledge, skills, understandings and values being collectively generated are constructed tentatively; the objectives for the session are not cognitive outcomes specified in advance, so much as pedagogical processes to be adhered to.

Fourth, relationships were informal but courteous, but underlying the informality was a very clear structure to the sessions, with the pace, direction and transition from one activity to another primarily controlled by the teacher.

2. There were three technical issues

First, the sessions did not rely on high levels of information technology, the dominant mode of learning being spoken discourse – language for learning. However, information technology played a strong role in personalising the out-of-class learning, since the teachers and students used e-mail to communicate about learning tasks set outside the class.

Second, this pedagogy was being used in what was in effect a preparation

for conventional unseen external examinations, which is often used as a justification for a much more transmission mode of teaching.

Third, it is sometimes implied that a particularly charismatic persona is a pre-requisite for good pace and challenge in classroom interaction. This was true in one case, where teacher charisma drove the classroom liveliness, but not in the other, where a quiet, authoritative and respected but unshowy teacher personality was outstandingly effective in creating and driving the learning. Power to teach (Robinson 2004) does not always require a drama queen in the classroom.

3. The key to understanding the pedagogy is the value assumptions underlying the teachers' classroom practice, not its surface features

The surface features of these lessons (identifying the purposes, setting tasks in pairs, sharing views with the whole class, setting out-of-class tasks) are significant but much less important than the underlying values and aims of the teacher – in this case to engage with students in the co-production of classroom learning. In other subjects or in other sessions in these subjects, the surface features might not be there; the key to understanding the pedagogy is to understand what the teachers were trying to achieve.

Personalisation is a collective activity, not an individualised one, but the collective frame leads to the individual developing her/his learning. The teacher, the student group and the individual student produce together the meanings and understandings that the individual achieves. It is also collective in another sense; the values and attitudes that teachers and students bring to learning are derived from, and embedded in, the collective organisational ethos.

This pedagogy is not new. It is elsewhere called constructivist learning. The characteristics of constructivist learning, which is derived from Vygotskian social theory, are that the teacher 'scaffolds' the learning of the student and provides the structured support to enable the learners to construct knowledge for themselves.

The sessions illustrated are in the fields of the history and English literature, where a heavy emphasis is placed on developing knowledge as informed judgements rather than knowledge as objective truth. The extent to which this pedagogy is generalisable across different subjects is open to question.

What seems securely embedded in these teaching and learning sessions is the way in which the whole school values and whole school ethos feed into the classroom behaviour of students and teachers. They concern values about learning behaviour, respecting differences in views, taking account of student voice, and the importance of self-motivation for learning. This set of values was the underpinning infrastructure of the personalised pedagogy, and without their influence on the attitudes and behaviour of teachers and students in classrooms, the pedagogy would not work.

The student voice

Student voice is a concept involving consultation with students as consumers of education, leading to improvements in organisational responsiveness to them and to increased choice by them over aspects of their learning. At its best, it generates a sense of agency and self-organisation among students over their learning.

We were able to engage in a group interview with seven students identified as gifted and talented. The purpose was to gain the students' perceptions of teaching and learning in the college and to examine the nature of student voice in their experience of the college. In this way we hoped to test the ideas about pedagogy with those most affected by it — the students. Three main themes emerged from this interview: what is effective for them in teaching and learning; student motivation and college values; differences in subjects.

Effective teaching and learning

Students argued that no single method of teaching worked for everyone and that what worked well for one student would not necessarily work for another student. Equally, what worked in one subject would not necessarily work in another. However, there were some clearly expressed judgements about pedagogy. The students believed that there was in the college an understanding that students learn in different ways. As one said:

'I went to a lecture by ... and he's a world expert. It should have been riveting but I mean 50 minutes straight lecture with no direct involvement from us! That's not the way things should be.'

But another said:

'Actually I like note-taking in lectures, others are more like visual in their approach, but the thing is that there should be variety. If there's variety then it works. Teachers talk, we interact with them, we take notes, there's PowerPoint presentation, we go into small groups, and we get good handouts – that's the kind of variety I mean.'

A third said:

'I like it when we have, say, the first half of the lesson being given information, then being asked to debate it, and we have to take in everybody's views and sort of filter them for ourselves. Discussion and debate are more valuable for me than anything ... the other thing is that you can learn in small groups, you go off in a group, and then those who, say, are a bit uncertain they can try out their ideas in a small group, when they would

not have done that in the whole class. The small group builds up your confidence and then that gets shared back to the whole class.

'The teachers guide you, but they expect you to do most of the work yourself – they give you support and very important they give you guidance about what to read or what things to do outside class. And in class the good thing is that they work with you, they give you good feedback, which isn't necessarily marking, they don't mark everything, but they give you guidance on what you've got right and where they think you're wrong and then they expect you to go away and improve it'.

Subject differences

The students had enough meta-cognitive awareness to know that the epistemology of subjects had to generate differences in pedagogy. As one student said:

'Methods are different in science from in humanities. It's very much more learning an exam technique and learning specific words and phrases, learning technical terms. It's not the science concepts, the basic ideas are very simple, what you have to learn is how to answer a question in a particular way, how to parrot back their phrases, and in one sense that's the bad thing in comparison with the humanities ... I've got this friend who's my age but he's like a real chemistry genius. People say how do you work things out like you do, you're weird, but he's cleverer at chemistry than anyone I know, but I got a better grade than him, because I'd learned how to answer the question properly. I think science exams don't really tell you whether you're best at the subject ... in geography and science you need to play the exam games.

[...]

If I have a criticism of the college it is that outside interests don't play as big a part in science as they do in history and English. Outside interests are not as well supported as in humanities.'

Another argued against that view:

Well, history teaching is less rigid, but there you still have to learn to work out the right things to say in an exam. It's important to be well prepared for the exam and it would be sort of irresponsible if the college didn't coach you for the exam ... and even in science here the teachers want you to go further than the exam syllabus so that you can get to the passion and the excitement. Passion for the subject is important ... but not in a way that would impede you getting the exam grade you need.'

Learning, motivation and collective passion

The students agreed that the college expected and engendered self-motivation, but they were all equally clear about how this was realised through the teachers' 'passion' for the subject, as well as their expertise in it. As one student said:

'I do love my subject – I know it sounds geeky, but I do. And you find here that the teachers are like that. They are really passionate about their subject. The college has such a good reputation that you are pleased to have got in here and they don't force the support on you, they offer it and you have to take the responsibility for taking it on ... They instil a passion for the subject, they have a personal interest in it and with that comes the motivation to learn.

'I agree and it's important that the expectations are there, important that they expect you to be as passionate as them, and it has helped me that they expect me to be like them. For me teachers' knowledge of their subject – I'm doing science – is absolutely important. There's nothing so demotivating if the teacher says, "I don't know", when you ask them for an answer, and there's nothing so motivating as Dr ... who's like a genius, he's a big national expert I think, and it just shows in the way he teaches, the way he takes you along with him and makes you want to be as passionate about it as he obviously is ... A teacher's knowledge and passion for the subject are linked and they make us motivated, or self-motivated ... but it's not simply motivation is it? It's discipline, self-discipline you need, well I need it anyway. You need a lot of discipline for this to work. The teachers aren't looking over your shoulder all the time saying do this or that, but they are expecting you to, like, to do your best, and that in the end means that you put pressure on yourself.

'I don't think it would work everywhere, in other colleges or schools. This place is full of self-driven individuals, and I mean teachers as well as students. It's important to get hold of knowledge for yourself and that wouldn't work in a school where you had less self-driven people about. But here the place is geared up to independent learning — it's a bridge between school and university — and the responsibility is placed on you, while the support and guidance is made available for you. If you go for it they'll do their best for you as well'.

Distinctive features

In the perceptions of the students, therefore, three elements of personalised learning are reflected. The first is Assessment for Learning (AfL) – that the pedagogy helped them assess what worked best for them in learning, and supported them in constructing knowledge for themselves, through a range of classroom and extra-classroom techniques and materials. Second, teaching that

stretched them – the college's value system was embedded in their experience of teaching and learning, most palpably in the passion of the subject evinced by their teachers. We would argue that these values of high expectations and excitement about learning, which the formal institutional value system proposed and which were embedded in the practice of the teachers and school leaders, were also self-consciously reflected in the values articulated and espoused by the students themselves. Third, student voice and choice – the students genuinely felt responsibility for their own learning, with the support of the staff.

At the three levels of the school therefore – the leadership, the classroom teaching, and the learners – school values were consistent and inter-related, feeding off each other to generate high levels of passionate teaching and learning.

Case study 5

School ethos, student voice and motivation to learn in a girls' grammar school

Background information

Padbury School is a Foundation girls' selective grammar school in the South East of England. In 2006–2007 there were 958 students on roll, including 278 in the sixth form. It is an Engineering Specialist School, a London Gifted and Talented Partner School, and was a NAGTY Ambassador School.

Pupils come from 80–90 feeder primary schools covering a range of socio-economic areas. Entry at age 11 is by examination, through tests in verbal reasoning and non-verbal reasoning. Students are ranked in order and the Local Authority (LA) offers places to the top 130 out of 580 applicants. Just under a third of pupils are from ethnic minority backgrounds. One hundred per cent of girls achieve five GCSEs with A*–C grades. In 2006, of students aged 16, 100 per cent continued studying and, at age 18, almost 98 per cent went to university.

The 2003 OFSTED report referred to the school's 'outstanding provision for gifted and talented students' and noted that the school was 'regularly among the top ten performing schools nationally'. It noted that in 2003–2004 the GCSE and A-level results of this school were among the top 5 per cent in the country (while on entry pupils were in the top 8 per cent of ability).

OFSTED reported a significant rise in the standard of teaching between 1996 and 2003 when 98 per cent of lessons observed were good or better. Teaching throughout the school was judged very good (60 per cent very good or better in Years 7–11; 72 per cent very good and 19 per cent excellent in the sixth form):

The main strengths are teachers' expertise, which is high in all subjects, planning, very high expectations and the pace of lessons ... This is an outstandingly successful school which has many excellent features. Standards are very high and improving yearly as a result of very good teaching. The Headteacher gives excellent leadership and the school seeks constant improvement. Girls are given a very rich curriculum which nurtures all

aspects of their development; they have excellent attitudes to learning. The school gives very good value for money.

OFSTED praised the careers guidance available and students are encouraged by a structured programme involving self-assessment, action planning and recording key factors in their achievement.

In the headteacher's view, much of the assurance of a safe organisation and environment comes from the manner of senior students. At the same time pastoral care has developed in recent years, as a website statement explains:

We aim to promote self-motivation and self-discipline so that our students develop the confidence to deal with complex choices and issues, balancing their own needs as individuals with their responsibilities to others. Therefore rules are kept to a minimum and are seen by everyone to be necessary for communal living. It is rarely necessary to resort to punishments such as detention.

Leadership: values and ethos

The SMT comprises the headteacher, deputy headteacher and three assistant headteachers. OFSTED's 2003 report followed the headteacher's first year in post, noting that a 'clearly understood system of line management' had been introduced, and that the new structure enabled the deputy headteacher to focus on curriculum provision, especially for the gifted and talented. These changes are now bearing fruit, with momentum being given in recent years to structural change (e.g. the school working day and curriculum) and to approaches to teaching and learning in order to develop more variety in teaching styles. The headteacher highlighted especially the younger generation of teachers who brought new practices and new ways of looking at processes.

Researching student voice

The school has a developing emphasis on research, which supports the work on exceptionally able pupils. Describing the school as 'an active research and development school', the headteacher stressed how provision was now made for teachers and, increasingly, students as researchers:

'We are keen to develop the students as researchers because then that will tap into a thousand bright minds who may well have some inspirational ideas about what we can be offering ... and how we could be doing it and how the learning process happens for them. We can improve the conditions for that.'

Research involving the school through the Independent State School Partnership

(ISSP) has investigated the learning dispositions of exceptionally able students, tracking them from Year 8 to Year 13. A second cohort, two years later, was described by the headteacher as:

'Our core student researchers because they're very used to the research process and are also exceptionally articulate about how they learn and the best conditions for learning and the worst conditions for learning as well.'

Through this framework, through consultation with the school council, and through ongoing dialogue with students, the headteacher helps develop the influence of the students' voice:

They are both highly respected and articulate and it would be a foolish thing to allow that fantastic resource to go untapped. So that partnership has grown: it strengthens teachers' abilities to interrogate their teaching when they can get it by quality conversation with students about the learning process, and that's very healthy generally – although you can always find some teachers who find that very challenging, which is understandable but the general trend is for them to be in dialogue about the learning process ... I have to ensure that I have the staff and student structures in place to continue to facilitate that.'

Students at the school have considerable say in how their learning is organised and managed, and in matters such as in the appointment of staff. Everyone contributes to the 'Vision Days' which now take place every three years; parents, governors and support staff are also involved in this process. The student survey resulted in very positive responses, with some areas for attention which are addressed in a series of action points. Students have also had a wider public platform when staff have taken groups of students to make presentations at conferences, and they have been involved in international Internet conferences/debates for students. Student voice has also influenced changes in the school regarding uniform, canteen rotas, timetable changes, a Year 7 house points scheme, introduction of Fairtrade chocolate in the canteen, introduction of alternatives to Nestlé, and a charity week for the 2005 Tsunami Appeal. When the school council voted to install a drinking-water system in school, students raised money towards it. At students' instigation, the school became an 'Eco-School', and now has a recycling system designed and carried out by students.

Developing student leadership

The school aims to prepare students for leadership and an academic tutoring programme gives students ownership of their achievements and learning

objectives. They set challenging personal targets termly with their tutors, and three days a year are given over to this.

Staff interviewed emphasised the attention given to opportunities for leadership, especially to Year 12 and 13 students who run most of the lunchtime clubs, giving much to younger pupils, but also gaining experience themselves.

One example of student leadership was an invitation to take part in a national 'Women's Enterprise Day' with five other schools. Staff chose to involve students who were exceptionally able in terms of leadership and social development, because this event was about team building, initiative and responsibility. The deputy headteacher explained:

'The key thing about the school, the ethos of the school, is that we are preparing our students for leadership, because they are, by definition and nature of the intake, they are going to be the future leaders, so we value all of that side, just as much, possibly more almost than, the academic. Because in a sense we know that they are going to do well academically.'

Learning beyond the school

The vision and values of the school's leadership are illustrated particularly well in its broad conception of learning. It encourages students to participate in wider schooling and participation in external groups. The student response, according to the deputy, is highly engaging in their attitude of service to others: 'they are lovely and they are generous in spirit and they have this empathy and want to help other people.' One such programme was an engineering class for severely disabled young people from a residential school, who work with the students after school on design projects.

A well-established summer school is based on a nearby heritage site and draws on science, music, poetry, design and technology. This is open to Years 7–9 and to gifted and talented students from three other local schools.

A partnership with local primary schools has operated for three years to provide cross-phase academic mentoring. Sixth formers give a series of weekly mentoring sessions to gifted and talented primary pupils in mathematics, English and science. The scheme 'enables mentors to develop personal and social skills, while providing a service to the community.'

The range of extra-curricular opportunities is impressively wide. These include festivals of drama, music and public speaking, Young Enterprise, charity weeks, Careers Week, the school bank, music lessons, readathon, cultural arts, the Duke of Edinburgh Award Scheme, Sports Excellence Awards, Year 12 lectures, school plays, London Live, World Challenge, law conferences, the Rivals, the Chinese Club, Nash Club, Debating, Model United Nations (with a one-day conference in Year 10), Medlink, Chemistry Olympiad, Junior Band, Voice Club, chess tournaments. In chemistry, A-level students benefit from

quizzes organised by the Royal Society of Chemistry, and Nuffield Bursary projects during the summer.

The annual 'Enrichment Week' suspends the timetable so that girls have the chance to tackle problem-solving, new learning and challenges in depth. It includes visits out of school, visits to the school by artists/writers and expert lecturers, specialist workshops, first aid training, self-defence, drama and music events and many other opportunities. An annual Oxford conference sees 50 sixth formers attending lectures and seminars over three days.

Gifted and talented policy

The school's policy document emphasises the potential of every student, and the primacy of resources and expectations, along with opportunities and support to nurture the gifts and talents of all pupils:

While the DfES guidelines suggest that each school identifies 5–10 per cent of students in each year group as gifted and talented, regardless of the institution's ability profile, the particular nature of [the school's] students means that the school is not bound by such parameters. [Our] students fall within the top eight per cent of the national profile. Its exceptionally able students have very high ability across the curriculum.

At the same time, the policy also recognises that 'in a school in which all students are gifted and talented, there is a cohort of exceptionally able students'. It sets out strategic objectives, provision for exceptionally able pupils, policy on assessment, and its approaches to resources, monitoring and evaluation and outreach work. There is a stress on individuality, on appreciating difference, and on students taking personal responsibility for their learning. One objective is to encourage divergent thinking.

The policy emphasises clarity in setting out for pupils their learning objectives and relevant assessment criteria, enabling them to address targets and informing them constructively about their progress. From September 2006, Year 7 and 8 students are given a comment on work only, rather than a mark or grade; this comment should indicate achievement against clear criteria. It stresses that lessons should:

- reflect high expectations for every learner;
- embody and inspire a spirit of enquiry, creativity, enthusiasm and perseverance;
- implement consistently the school's positive behaviour management policy and procedures.

The headteacher felt that while issues such as personalisation in relation to the gifted and talented students were important, there was, as with many initiatives, a temptation to reduce these to organisational terms: 'Let's put it in a box and we can say we're doing it. It's far more challenging to get it embedded into the soul of an organisation, isn't it?'

The deputy headteacher explained that the policy had been established before recent national initiatives:

'Because of the nature of the school, we've always regarded all our students as gifted and talented and we haven't discriminated at all or differentiated. Our policy was always very carefully called "Educational Enrichment and Enhancement" but ... it became politically desirable to have the magic words "gifted and talented" ... We've had a policy for many years. In the last update, we then made it explicit that our ... terms of reference would be "exceptionally able". But the policy and the ethos of the school is to cater for everyone because we are very, very concerned about becoming divisive.'

Role of gifted and talented coordinators

Responsibility for gifted and talented provision is divided between three coordinators. Specific areas are shared out, including the brief for the exceptionally able, involvement in research with the ISSP, research generally, and liaison with NAGTY and with London Gifted and Talented. One coordinator stressed that the overall approach to identifying gifted and talented pupils was 'not a black and white business', but was flexible to allow for differential progress over time. Introducing an 'Aim High' system helped staff monitor student progress. Routinely, pupils' academic planners, signed weekly by tutors and parents, provide a channel for recording progress and encouraging feedback from parents on how their daughters are progressing.

While unwilling to label students publicly, the school recognises the need to stretch pupils who might find themselves frustrated in the classroom. The school uses the criteria developed at NAGTY to identify students, but subject departments have their own criteria for identifying pupils who are exceptionally able in specific subjects, and they have departmental strategies to meet their needs. At this school, meeting the needs of gifted and talented students is not seen as a task for a sole coordinator, but rather an approach which operates school-wide and in which every department plays a part.

Classroom practice and pedagogy

Examples follow of classroom practice observed in the school.

Science Year 7

In a lab, with some pupils sitting at the sides of the room, the register is taken. The lesson starts with questioning about what they covered in the last

lesson. Pupils are evidently engaged and eager to answer questions and there are many positive affirmations of praise from the teacher. This lesson considers the building blocks of the body (organs, tissue, cells, etc.) and different definitions of these. Material from the textbook is read aloud by four students, and words from the text are used as a basis for stimulus on the whiteboard. Pupils have five minutes to define each word with a sentence and have to tick off learning objectives.

The teacher circulates and all are on task, despite some chatting at the back. Though the same hands repeatedly go up, the teacher chooses different pupils. They read out their different definitions. The pace is fast; it is set to the faster pupils and the class is told to stop to listen to instructions as some have finished but those who have not are told they will have time to catch up.

An exercise involving scissors and glue follows. A couple at the back are unsettled and the teacher tells one to move. The next task will be homework so they are encouraged to do as much as possible. He draws details on the board and talks through harder elements, observing that the task has been 'a bit more challenging than you first thought'. He explains what they have to do if they want to do 'excellent' homework and the last five minutes involve questions to the whole class. The second homework task is to find extra information from the Internet: he explains that this is more open-ended and there might be a commendation (three 'excellents' equal a commendation) for the most wideranging list.

Religious Education Year 13

The group sit at tables in a U pattern which facilitates group work. The first five minutes are spent on group discussions of religious experience: they are thinking about the different ways in which religious experiences are defined throughout the world, initially using pictures as prompts. They give individual feedback on what they felt about these different sorts of experience. The teacher goes to different groups. There is very high-level dynamic discussion. They produce their own definitions of religious experience.

Next students are given a prominent philosopher's definition. As they watch a five-minute video they make notes: the video gives more detailed explanations than their textbooks. Individuals are asked to define different types of experience. They return to the pictures and explore further the descriptions, putting the pictures into appropriate categories.

All the students speak and no-one dominates the group. The lesson ends with a summary of religious experience, drawing together some common feelings.

Spanish Year 10

This class has 26 students. There is a business-like atmosphere and girls file in and settle quickly. They practise the preterite tense: the teacher speaks in

Spanish, asking what they did the previous evening. He mixes direct questioning with taking answers from volunteers. The girls are focused and well motivated, checking vocabulary in their books to prepare answers.

The next task is to question each other in pairs and they start this quickly, helping each other with tenses and vocabulary. When the teacher calls for their attention again they immediately fall quiet.

The whiteboard is used for interactive practice of the preterite with irregular verbs. Teacher-led activities follow, and they work in pairs to practise concepts. The lesson has a brisk pace and variety of learning tasks. Students seem confident asking for help or clarification. Both sides maintain a polite, friendly working relationship. The lesson followed departmental policy of ensuring oral and aural practice in every lesson. It was well planned and time was used efficiently.

Student perceptions of their motivation to learn and school ethos

Developing high motivation for learning

It is clear from the data that students learn how to prioritise and handle a full and demanding workload. By the end of their schooldays they do this with aplomb. A group of ten Year 13 students were asked to elaborate on the school ethos and its relationship to their motivation to learn, by means of a group interview. Eight had been at the school since Year 7 and so were able to look back across the whole of their time in the school, while the other two were able to compare this school with the others they had attended. They discussed the pressure they felt from the school and from peers. They were expected to work hard and achieve highly, but they were able to cope with the pressure of expectations. Responses included:

'It's a nice school atmosphere to be in because you ... can be smart and not have to worry about being bullied about being smart. Oh yes, the opposite as well: you get incredible pressure to be smart ... "bad" in this school is - you know - a B ...'

'I don't think we have pressure from anyone else. We put pressure on ourselves.'

'The only time I have really felt pressure is when I am doing outside stuff that impacted on the amount of school work I have rather than getting work from school. So it wasn't really school-related stuff, it was outside stuff that was causing me to be stressed out.'

'You just make time. It's not a problem. You know what you have to do and you sit down.'

'I've never actually found I have so much work that I can't do other things. That is until this term, but that's a sort of pressure I am putting on myself to like get to Uni. But up until now I've had the approach that if I don't finish it now I'll finish it tomorrow'

One student who had joined the school in the sixth form found the atmosphere 'very different' at first, but:

'Then everyone's got the same type of work ethic so there's not that kind of pressure from your friends – you know – to stop doing your work and then go out. Because everyone really wants to succeed in what their plans are ...'

Asked what their motivation was, one student responded:

'Ourselves, really. On a very basic level I want to work so I can go to the Uni I want to go to. But because I also enjoy it. I enjoy doing the extra bit in order to succeed. So if I do well in my school work, it gives me extra time to do other things.'

These students recognised the opportunities which the school had offered them and from which they had benefited. One remarked on the effect of the school giving them the message: 'You can achieve this and will.'

Another articulated the connection between the school ethos and her own motivation:

'I think that's what the school shows us that there is so much we can achieve and then - I don't know - we're sort of the product of our surroundings. We now think it comes from us, but in a way the school taught us to be how we are in that we know we can achieve. It feels now that it comes from us, but it probably doesn't.'

The group was very conscious that staff in their school had few discipline problems compared with many other schools, where teachers must also cater for a wide range of ability, one student saying, 'if you've got a class with gifted girls who can't understand what the teacher's saying, then it's clearly a teaching thing.'

These sixth formers distinguished in a clear-sighted way between very good teaching and the less satisfactory teaching which some had encountered, while recognising that the ability of students (especially those at the top of the school) could present its own challenge to some teachers new to the school. Responses included:

'I think the problem some teachers coming in here find is that we are all intelligent young women and we will stand up for what we think and a lot of them find it very intimidating.'

'I can imagine that a group in the sixth form, or any group in any level here really but especially the sixth form here, when we can think on our feet and quite a few teachers who come here and I've seen them just melt down when we're firing questions and they just go "Oh, oh".'

'The girls absolutely will respect someone who has the ability to teach them rightly. That's part of the remit ... that we want to learn.'

They had reflected for themselves on relationships with staff, one saying:

'I must say that that's a really good thing about our teachers here though. In general, they will spend the extra time with you on whatever it is and see you at lunchtime if you want that ... If you don't understand anything or need more information, they will take time out of their own time to spend with you.'

There were, as might be expected with bright articulate students, some ambiguities. The 2006 student survey reported that 'the vast majority feel that teachers treat them with respect and consideration'. It recorded many comments about encouragement and celebration, but with a few feeling that there was too little recognition of minor achievements and improvement, an issue taken up in the report's action points.

One student considered that in the lower school they had been 'spoon-fed', to which another replied:, 'If they didn't we would just coast because most of us are intelligent enough to pass GCSE at reasonable levels without really doing any work the whole year.'

These students had learned to respond to the high standards prevailing in the school. One who had ten As and A*s at GCSE felt that this was 'good and I was happy with that. But according to the school that was average.' Another felt that in other schools much more praise would be given for doing well. Not getting due recognition was said by one student to make some people 'really uncomfortable'. Another recalled the gradual realisation after primary school of being a little fish in a big pool:

'It takes a few years for people to go, "OK, I can deal with the fact that there are other people cleverer than me as well".'

Balancing this, a student who had moved to the school in the sixth form valued being stretched to achieve more:

'In my old school I could always ... get people to say like "Oh, well done, you've got great brains, you're fine" but I wasn't pushed at all.

And then I came here and went "Wow" because everyone does so well and then you are immediately normal but then it causes you to raise the bar ...'

Nonetheless, the standards expected by staff and their critical appraisal of students' work were welcomed, rather than being seen as demoralising, especially when teachers were careful to spell out the specific area for improvement.

The impact on their motivation and aspirations and the seriousness and determination they brought to their studies were captured in the following comments:

'I like achieving. I like to know I can get where I want to go. You know, I don't know exactly what I want to do in life but I know that if I work hard enough then hopefully I'll get to where I want to go, and if I don't I'll have tried my best anyway. I couldn't bear the feeling that I didn't do so well but I knew I didn't put in everything I had to.'

'I don't like the phrase "student voice" ... it implies that we are a completely separate entity to everyone else but the best teachers at this school treat us like adults ... "Student voice" is just, like, you know, we're completely separate people who have a completely different way of looking at things.'

This last comment implies that the ethos of the school, as reflected in the social relations between staff and students, was a lived experience for students, not merely paragraphs in a policy document.

These were capable, articulate and confident young women with a strong sense of the way the school had helped them develop in those competencies. Their resolution and academic success went hand in hand with their achievement in other areas. Involvement with the charity Global Campaign for Education resulted in a letter to students from the then prime minister, that ended: 'Please continue to make your voice heard.' The confidence which girls at the school develop is shown in a letter written by two Year 13 students who engaged in a debate about student representation in a local newspaper. They detailed various ways in which students at their school had initiated projects and were involved in decision-making within school and beyond it, asserting that: 'We can and do change things.'

Distinctive features

The data show that this school integrates provision for gifted students within the school's ethos and across the board in all subjects: this is especially clear from the school's résumé in response to the LA's request for information about enrichment activities, and from its curriculum audit in relation to national standards for gifted and talented education. Staff and students readily mention specific opportunities which take learning beyond the standard curriculum. Opportunities for enrichment are given both within the subject and in extracurricular activities. Some of these are instigated by students themselves; others are arranged by staff. Some involve writers/artists in residence or expert speakers coming into school, but they also include fieldwork, theatre and gallery trips. Overseas exchanges and community work play a part, as do national competitions and conferences.

The high ability of girls who enter the school, combined with their motivation and hard work, means that schemes of work can be covered very efficiently. Already some pupils sit certain GCSE subjects early. All start the sixth form with four AS courses, and some with five. While the term 'gifted and talented' is not much used with pupils, the school can take it for granted that virtually all girls admitted share the very high aspirations of staff and have their parents' keen support to do well.

Both staff and students said that if they were under pressure, it came from the individual pupil herself. At the same time, the standard of work to which they are accustomed and also the combination which students display of determination and enjoying their learning have been nourished by the distinctive school context.

The school has strong leadership, a very dedicated staff and a strong shared ethos. Teachers often give free time to helping pupils who need support. Restructuring the SMT and other changes since the headteacher's appointment have established a framework which enables new developments to be pursued.

The long-standing experience of staff in providing for exceptionally able girls made them well placed to adapt to new developments. These have given opportunities to build relationships with other local schools, both secondary and primary, and to network with other schools in gifted and talented work. Recent staff appointments; the SMT restructuring; an increased focus on the curriculum, assessment for learning and thinking skills; along with the introduction of whiteboards and better ICT provision have helped develop scope for more varied styles of teaching and learning.

The school's stress on individual development and responsibility for one's own learning appears to be absorbed by girls without creating a hothouse atmosphere. Pupils are 'motivated' but not, it seems, 'driven'. They develop skills in managing the many tasks they must complete, as well as the others which they choose to take on. Interviews and observations show that they value and benefit from being in groups where lessons move briskly and expectations are high.

Students respect staff for their professionalism, knowledge, support and readiness to do more than is called for and because they are treated as adults. Teachers respect pupils, speaking of their abilities, hard work, achievements, originality,

liveliness, concern for others and maturity. Such relationships create a strong communal basis for learning and personal growth. The headteacher points to an ongoing dialogue between students and staff about the learning process.

Student voice is very important at this school. This was evident in interviews as well as in school records. Through 'Vision Days' students have a formal say in the future development of the school. They develop confidence in discussing their academic subjects and other areas, both in school and through out-of-school opportunities. When situations present themselves, sixth formers are ready to speak out in public.

The school's gifted and talented fund, though modest, has allowed certain activities to take place. Small sums put into this fund give a degree of independence. So the costs of sixth formers involved in academic mentoring of gifted and talented pupils in primary schools was helped by funds for a teacher's research project on this topic. And SMT commitment helped, for instance, to support a new summer school at a cost of £10,000 (at a point when there was no guarantee that external funds would be secured).

The Engineering Specialist School commitment to community work involves teachers working with five local primary schools, e.g. in the area of design and technology to develop skills among primary teachers, followed by pupils using the workshops at school.

The school is not a static organisation. The school's development plan in 2006–2007 had the primary aim 'To Develop Learning Experience', with the following objectives:

- to develop Assessment for Learning (AfL);
- to carry out a curriculum review;
- to develop thinking skills;
- to develop the school as a Centre of Excellence for gifted and talented provision;
- to develop 'Aim High';
- to develop the use of comparative data;
- to share teaching and learning good practice between departments and beyond the school;
- to continue to develop e-learning pedagogy;
- to plan and manage financial and physical resources efficiently and effectively;
- to raise self-esteem through consistent behaviour management;
- to increase efficiency of performance management;
- to develop teaching and learning leadership and management capacity.

Alongside this, in June 2006 departments contributed to an audit (updated in October) of the school's provision against national Quality Standards in gifted and talented education. Much of the evidence is designated 'exemplary'.

Appendix 7.1: General criteria for identifying gifted and talented (exceptionally able) students used by teachers at Padbury School

- displays curiosity; is imaginative and questioning;
- shows ability to think in the abstract and make conceptual leaps;
- appears to have an instinctive grasp of concepts and skills;
- understands new concepts quickly and questions to explore them thoroughly;
- shows ability to sift information, analyse and hypothesise;
- is confident in expressing opinions and spirited in disagreement;
- can evaluate perspectives other than their own;
- thinks logically and has the ability to present coherent arguments to justify a point of view;
- is original in solving problems;
- shows an understanding of cross-curricular links;
- may be untidy in presentation;
- may remain silent in lessons and produce highly original written work;
- asks intelligent questions which may be difficult to answer;
- is keen to work independently and take responsibility for her learning.

Case study 6

Curricular depth, enrichment and interactive teaching in a boys' grammar school

Background information

Beddington Grove School is in the centre of a major city in the South East of England. Education here began in the twelfth century; the school dates as a Free Grammar School from 1486. In 1991 it became grant-maintained and in 1999 became a foundation school. It is one of 30 state-maintained boarding schools. In 2006–2007 there were 866 pupils aged 11–18 on roll, with over 200 of these post-16. About 10 per cent are boarders, who pay for their food, but not for tuition. The school operates its own admissions policy, with selection for 112 places at age 11 by examination. The ablest 100 are selected out of approximately 450 applicants, with students from disadvantaged backgrounds admitted on the same basis as others.

The school describes itself as 'a specialist environment for the very able', and has a long-standing record of high academic performance. Boys take up to 11 GCSEs, and in 2006, 38 per cent gained 11 A*–A grades. Overall, 90 per cent gained five A*–A grades and 100 per cent gained five A*–C grades. A-level results in 2006 gained by the 126 candidates show 64 per cent gaining grade A, 86 per cent with A&B and 100 per cent with A–E.

The most recent OFSTED report notes that:

Pupils in years 7–11 achieve exceptionally well as a result of teaching that meets perfectly the needs of high attaining boys; Pupils' and students' attitudes to learning are exceptional; The school goes to exceptional lengths to broaden and enrich the education of all its pupils and students; This is a school with a total absence of complacency about its already high standards.

The senior team consists of the headteacher and deputy headteacher, and five assistant heads. In 2006–2007 the school had almost 70 full-time equivalent (FTE) staff, plus visiting modern language assistants and music staff.

The school's older buildings are from the late Victorian period but recent developments include a modern building for ICT, art, technology and

mathematics. Another houses the Learning Resources Centre with library, careers library, ICT provision and multi-media PCs and server, with rooms for modern foreign languages, history and geography.

An assistant head describes the school as 'a very high flying middle-class grammar school', but 23 per cent of students have English as an additional language, since the school's boarding facility attracts substantial numbers of applicants from Pacific Rim countries seeking sixth form education prior to their applying to UK universities.

The prospectus states that the curriculum is designed to obtain the very best from very able boys, but stresses that it 'seeks to support all students to achieve very high standards and pursue excellence'. Students regularly do extremely well in national competitions like the Maths Olympiad. In the British Biology Olympiad the school was, in 2005, the top school in the country.

Pupils have access to a wide range of extra-curricular activities in lunch hours, after school and on Saturdays. These include many sports, varied musical activities, and clubs including for bridge, chess, public speaking, drama and business studies. A Young Enterprise group, the Combined Cadet Force, Scouts and Community Service Scheme offer further opportunities. Pupils are given information about national competitions and encouraged to get involved in specific enrichment initiatives such as the English (media) programme for young trainee journalists which is linked to the local football stadium, where boys opt in to gain skills in researching and preparing an article as part of a competition. Similarly an extra-curricular Science Club project involves making a wind turbine for an African village, stimulating follow-on activities to raise funds from sponsors to develop the project further.

Gifted and talented policy

On entry, pupils go into one of four academically similar forms. The school's statement on its gifted policy and provision stresses that all teachers treat all students as being gifted and talented:

The school ethos celebrates success and encourages all students to have high expectations of themselves. The purpose of the gifted and talented policy is to ensure that provision is made to challenge and develop the most able students in specific areas and to focus support for those who are underachieving.

Classroom activities seek to encourage higher-order thinking and to motivate pupils to work independently or in collaboration with others. In a 2004 paper, each department could describe ways in which, within school and outside, it was providing an extended and enriched curriculum. Subject links were in place with the local university and other external agencies. However the school's director of teaching and learning opposed the idea of using the term 'gifted and talented' to designate any particular group:

'Actually telling the kids that they're gifted and talented, that's something we have never done and I don't think it would be productive ... You're going to have a dozen or so who are then going to be disillusioned because they're simply not given a label ... present school policy states that all pupils are gifted and talented and that time should not be spent defining the top 10 per cent but rather providing enrichment and challenge for all'.

It is normal for students to sit 11 GCSEs. The aim is to stretch students even if 'occasionally there's slippage'. The school does not favour acceleration, which can leave exceptional children finding themselves socially out of place. Instead the school provides for gifted students within their year/age group. The staff governor reinforced this, saying that when pupils are asked about possible acceleration into an older year group, they are not keen on this idea, whereas they respond very well to the many extra-curricular activities available.

Professional development

A formal profiling system takes students out of lessons to grade themselves in each subject. The form tutor gets the subject reports, talks through them, grades their reports and explains these. The pupil has a chance to respond to these comments. The profile then goes to parents who have the chance to comment. Although the gifted and talented coordinator thought that there could be a hint of apathy in Year 11, the profile does not focus only on subjects in which students need to improve, but assesses progress across the board.

Commitment to planning for able pupils is evident in what teachers say, in lesson observations, and in action research and papers prepared by staff. These focus on seeking depth and breadth, acceleration by bringing more demanding material down where appropriate, focusing on higher-order thinking skills (analysis, synthesis and evaluation), promoting independence, and support for reflection and self-evaluation. A self-evaluation grid for pupils includes prompts such as 'Reasons for scoring less than 70 per cent in the questions', and 'How do I improve?' A recent gifted and talented departmental meeting pointed to finding ways to ensure that NAGTY members participate in at least one course, and to seeking professional development for all staff on providing challenges for gifted and talented students within and outside lessons.

Gifted and talented provision is monitored and the sharing of staff experience is strongly promoted, largely through its teaching and learning group. This group is central in focusing staff attention on pedagogy for very able students, and its establishment and work reflect strongly the values of the school as a whole, including its senior management. It has led two successful phases of work on thinking skills. Staff have undertaken and reported on action research projects. The school is a lead provider of gifted and talented education in the locality; two teachers are Local Authority (LA) lead professionals, giving six

days annually to supporting development across the borough. For this, the borough allocates the school £1,500 per lead professional. Certain specialist days are open to other schools and gifted and talented pupils from elsewhere come to share events.

However, work focused on gifted and talented is funded mainly by school departmental budgets. In recent years funds for the humanities have brought their resources to a level equal with science and mathematics and enabled the school to keep breadth in the curriculum. The value now accorded the humanities was seen by a long-standing teacher as one of the greatest changes in the past 20 years in the school.

The gifted and talented coordinator monitors progress and collates information from departments as to specific activities, so as to provide an overview of gifted and talented provision. He is supported by an assistant head who is also the school's director of teaching and learning. So the focus at middle management level has backing at senior management level.

The coordinator said that the school seeks to formalise and record what they do, on the grounds that it is much more meaningful to describe teaching and learning strategies than to expend effort on identifying gifted and talented students. Within departments, staff identify exceptionally able students in a relatively informal way. They do not want to rely only on quantitative data alone for this; often a teacher's comment or insight can say more than a test result, especially where a student might be under-achieving.

In Autumn 2006, the coordinator completed an action plan detailing plans for NAGTY entrance, achieving the NACE Challenge Award and developing enrichment schemes within departments for all pupils. A November 2006 résumé notes that: 'We are aware that entrance to NAGTY is only a first step – what is important is encouraging pupils to attend NAGTY courses and to monitor their activities.' Thus gifted and talented issues are given careful attention, but within the context of a school where the ethos focuses on learning which is appropriate and challenging for every student.

The existence of the teaching and learning group demonstrates senior management's emphasis on rethinking and further developing pedagogy. If there was initially a degree of resistance from some staff to the new learning and teaching agenda, the energy and commitment of the previous gifted and talented coordinator had, in one teacher's view, overcome this. Recent staff changes have brought in new approaches but long-standing staff have also shown that they are receptive to new ideas. For professional development, the school will often send a teacher to visit and learn from another school's practice.

A new headteacher, some recent staff changes, new status as a specialist school in the humanities, and the work of the teaching and learning group are all aspects of ongoing development in the school.

School ethos

The well-established school ethos was noted by OFSTED in 2001: 'There are high aspirations, tremendous vitality and great determination to succeed on the part of staff, pupils and students alike. A very strong feature of the school is the way in which it encourages and manages the social development of the students.'

Much is asked of all the boys and much is achieved. While not headlining the label of 'Gifted and Talented', the school incorporates a gifted and talented focus within its general approach, where the basic premise is to exploit ways of teaching and learning which benefit all very able students.

A biology teacher stressed how 'there tends to be an ethos of aiming high in the classroom' and reflected on the boys' attitude:

'Somebody said to me that he couldn't believe the way the students respected each other's ideas all the time, and how there seemed to be a real sense of security in having a go and it quite often wasn't right, but would maybe later lead on somewhere else, and there was a real security in that and I think we're all quite proud of that.'

A milieu of mutual respect where students have the confidence to take risks in this way encourages the aspirations and competence of all pupils, not just the more confident. Any serious misbehaviour at the school is handled with a 'contract' drawn up between the student and head of house, sometimes involving the head of pastoral support. A one-page agreement signed by the student, teacher and parent sets out their understanding that unacceptable behaviour will not recur.

Staff value the special environment in which they work at this school. One spoke of the 'privilege' of teaching such students; another said, 'It's absolutely lovely to be able to teach in a school like this.'

Extra-curricular activities

Extra-curricular activities play a strong role in the school's culture. About 80 sixth formers are mentors for younger pupils, and a mentoring skills handbook sets out generic skills in this area. The head of pastoral support organises brief training sessions which focus on listening skills and prepare students for academic and pastoral mentoring.

Mathematics tutoring by a subject tutor in the lunch hour is provided. Volunteer mentors from different year groups work with pupils who are identified as needing a little extra help, or who ask for assistance. The teacher organises the pairs, but the emphasis is on the students meeting each other. The benefits are not purely academic. Mentors' high motivation and the relationships between mentor and mentees foster a more cohesive ethos across the school.

A strong house system and giving sixth formers leadership opportunities in sport, music, drama and external competitions help develop a mature approach. Community service involves sixth formers with older people locally and with neighbouring primary schools. They help with reading, support science lessons, and deliver a lively classics programme. Other notable features are an anger management course, and a drugs programme led by students.

At the lunchtime Bridge Club, led by a mathematics teacher, some students become very good players: three are members of the England team. The cognitive skills required and the competitive element means that the brightest players are stretched.

The Help Young People (HYP) peer-led drugs programme gives four students from Year 11 and a member of staff a week's training from the local police service. Back in school students deliver drugs education to Year 8, with no adult present. These 16-year-olds have given presentations to parents, staff and governors. The programme was featured on national television. The head of pastoral support described this as a 'hugely successful' programme, drawing in older boys who have 'street cred' as well as being capable of dealing with a demanding commitment. As a result, boys in Years 9 and 10 coming to drugs education as part of their PSHE programme have already gained basic facts from older students when they were in Year 8.

The pastoral head, also head of boarding, described the 'vertical' pastoral system structured around houses. Support is strengthened by the fact that new boys have a head of house as their tutor in Year 7. In Years 8 to 11 they usually have the same tutor for continuity. A 'class watch' framework strengthens links between older and younger pupils. For the 34 boarders, the head of boarding, his family, and three other teachers aim for a family atmosphere.

The house system and the status given to sixth formers reinforces the role of the 20 or so school prefects who organise school assembly, do readings, supervise the tuck shop, and guide visitors to the school. Senior prefects speak at events like prize-givings. Tie stripes denote status, with house prefects selected in Year 12 and school prefects in Year 13, partly elected.

Student perceptions

There are channels for student voice to be articulated. Consultation with the student council informed work by staff on thinking skills and questioning. A student survey on the learning environment showed that students wanted to see uplifting phrases and quotations around the school and suggested creating a 'mind mapping' room. They pointed also to concrete matters such as broken tables, a preference for double desks to help group work, more window blinds, more interesting posters on walls, and other practical concerns. The survey indicated subjects where pupils felt most supported.

The student council had also highlighted a wish for more teachers around the site at lunchtime and issues to do with healthy schools action and anti-bullying.

The sixth formers interviewed welcomed the classroom use of interactive white-boards and the ability to access material from the shared network.

A group of sixth formers who had mostly been at the school since Year 7 spoke about how learning had changed after GCSE:

'I suppose it's preparing us for university. I do agree that it is freer and I was surprised at the extent to which it is different. But I would say that's a positive thing, I rather like that, where you're expected to work more independently.'

'It encourages you to take on responsibility.'

'As one who didn't step up really in the early stages of Sixth, I think it can catch some people out and you can find yourself catching up, which is what I am doing.'

'It's not actively promoted but the activities are always there for those who want to go and do this. It's not that you have to do these but they are there if you want to get involved.'

Though the school has always offered elocution, public speaking has recently developed more strongly, leading to training and house competitions for Years 7 and 8, with older boys taking external qualifications from the London Academy of Music and Dramatic Art (LAMDA). They also mentioned other activities important to them: various sports, a reading group with other schools, writing for the school paper, and music.

Their lively descriptions of work in local primary schools demonstrated the benefit they gain from this activity. One had discussed with students from another school the International Baccalaureate (IB), where credit is given for such work under 'Citizenship':

'That's the difference, they get rewarded. We actually do more but we don't get formal recognition. I think it's fair that we do community service because we enjoy putting something back. I think our system is much better than the IB. It encourages you to go above and beyond that. Therefore you see it as less of a chore and something you can enjoy.'

Some said that smaller sixth form teaching groups were motivating as 'everyone wants to be there and I end up really enjoying it.' In history, because a good proportion of students intended to take the subject at university, 'they are really quite dedicated and do lots of reading and that brings a lot to the rest of the group.' Physics too was said to generate enthusiasm: individual investigations result in students doing a lot of work in their own time.

Competition is taken in one's stride and apparently relished:

'There is a large desire and fighting to be at the top. If you're not at the top or near it then you need a lot of supporting ... That does push people to succeed and want to be the ones at the top of the tree.'

'It's absolutely the reverse scenario of many schools ... especially with the "gifted" label being very, very unpopular in lots of schools and students not wanting it to be public ... You don't have to be embarrassed to be smart here.'

Sixth formers' overall assessment of their learning was very positive, and the school's ethos and a culture of encouragement to use all their talents to the full has been internalised by these sixth formers.

As the biology teacher said, speaking of the reciprocal respect shown between staff and students: 'You're not going to be singled out here if you ask a very strange question or if you come up and say to the teacher "I want to know more about this".'

Classroom practice and pedagogy

Commending achievement in Years 7 to 11, OFSTED's 2001 report states: 'The reason for this very high level of achievement is the outstanding quality of the teaching that is quite perfect for high attaining boys.'

Since 2001, much further work has gone into developing teaching appropriate for able students. Exploratory work by staff has resulted in a 60-page *Teaching and Learning Handbook* in September 2006. This sets out policy, draws on in-school staff and student survey data, discusses teaching strategies and explains approaches to assessment for learning. Strategies for peer- and self-assessment are given, with guidance on higher-order questioning; how to plan using Bloom's taxonomy; the school's experience regarding teaching thinking skills; teaching styles for different year groups; the learning environment; literacy strategies across the curriculum; and a summary of academic and pastoral mentoring in the school. This major resource for staff brings together school-specific material with information from elsewhere.

The 2006–2007 action plan drawn up by the teaching and learning strategy group follows through work in school on thinking skills, reporting back on action research projects, including lesson observation. It considers how to widen staff participation in these activities.

The teaching and learning group gives a strong focus in shaping the curriculum for very able pupils. It is not restricted to theory or action research. Matters recorded in October 2006 echo concerns common in many schools: timetable problems, rooms and resources, timings, lunch hour and lesson length. Issues such as the negative effects of travel time for staff and pupils, insufficient office space for certain departments, and the use of classrooms by students eating lunch are not treated as generalised complaints. They are

raised in terms of their actual or potential effect on the quality of teaching and learning.

At the top of the school, the 2006 report *Reappraisal of Sixth Form* reviews performance over the previous four years, including using student question-naires and observation of teaching. It identifies persisting characteristics which may hold back some sixth formers, as well as areas where more varied styles of teaching are now evident. It comments on aspects of student note taking, class management and relationships with sixth form students.

The director of teaching and learning had recently observed teaching as part of the school's self-review process, focusing here on humanities and English:

'Lots of ICT, lots of quick assessment, you know: "1–5 hands up – are you on a scale of 5, 4, or 3 at the moment?"; "How do you feel about things?" Lots of assessment, lots of interaction, great fun in classes, quite kinaesthetic, very visual the learning, interspersed with lots of games periods ...'

She stressed teachers' high qualifications and the depth of their disciplinary knowledge, which enables them to offer one-to-one tutorials for students applying to Oxbridge colleges. But there had also been 'a huge shift' in teaching styles from people 'lecturing from the front and boys taking notes. What we have turned to is something much more interactive.'

The specialist qualifications of staff are noted. This is important when dealing with highly selected students who may be very ready to question and challenge and indeed to query if they find themselves wrong. One teacher remarked: 'We do have kids who come to the school who have never been wrong in anything, or at least they have never been told that they have been wrong.' For this reason a science teacher regularly gives Year 12 an exercise devised so that they are quite likely to go wrong so that they can learn how to cope with the experience. He considered the school demanding context for recently qualified staff: 'There is so little on the PGCE that actually equips teachers to teach very, very able students.'

Teachers have given attention to thinking skills, study skills and alternative approaches. Focusing on Assessment for Learning (AfL), the school collected together departmental strategies, with other material available on the intranet. Recognising a strong tendency for kinaesthetic and visual learning styles had helped shape pedagogy. There was an emphasis on interactive approaches and the use of ICT. A 2005 booklet, Assessment for Learning: Departmental Exemplar Materials, offers staff various models:

- Chemistry: Year 8 presentations on water with criteria for peer group marking
- Drama: Year 8 Student Grid
- English: Formula 1 Writing Grid for Years 7, 8, and 9 to track progress and provide individual target setting

- History: KS3 Skills and Levels Record Book for pupils and teachers
- MFL: KS3 tracking sheets for Listening, Reading and Speaking; KS3
 Fiche de Controle
- PE: KS3 pupil self assessment matrix and targets, Year 9 pupils and staff assessment sheet for wrestling and rugby
- Physics: Laboratory work self assessment, homework feedback sheet
- English: Oral feedback

As part of the AfL programme, the biology department reported on an investigation with Year 7 and 8 pupils, exploring how pupils rated certain criteria for successful learning.

Examples follow of classroom practice observed during fieldwork at the school.

Geography Year 9

Twenty-five boys settle quickly into a lesson which moves at a very rapid pace. The aims are on the board: they will examine types of industry, exploring primary, secondary, tertiary and quarternary industries and how these develop. There is a high level of involvement from students. Slides on an interactive whiteboard illustrate and annotate the content. Students are questioned so as to generate ideas. Links especially with history are encouraged as the teacher says: 'Let's make this cross-curricular.' There is plenty of humour, but the class is kept on track; students who are not listening are singled out. Tasks are clearly explained.

One activity (cutting out a list of written ideas and putting them on a timeline) is introduced by the theme tune to *Mission Impossible* and images from the films. Though unrelated to the topic, this elicits an animated response and seems to have a positive affect on students' motivation. The kinaesthetic approach seems well suited to these Year 9 boys. At the bell, they are reminded to think further about the last question.

Biology Year 9

This lesson about variables and data in biology moves on to the topic of inheritability and genes.

The pace and energy of the lesson is palpable. On an interactive whiteboard a slideshow presents the lesson's main points and task information. The first task is to consider what factors may account for individual differences between populations of daisies. The teacher says that there are no right or wrong answers: what she requires are logical responses. Students seem to enjoy a degree of creativity in their answers and the classroom is full of energy and humour. Some advanced responses mean that the teacher has to explain that the student will find out more in a later lesson.

In the second task, students use laptops to access the Internet and a website with games about genetic inheritability. They seem to enjoy this task on the whole and the increasing gradient of difficulty lets those who move on quickly try something more challenging. Giving Year 9s access to laptops and the Internet involves a fair degree of trust and mostly students behave very well and stay on task, though one pair, found on an unrelated game, have their privileges revoked.

In this highly interactive lesson, students have to answer and ask questions. Thinking skills are emphasised by the teacher. This is demonstrated when she says to a student: 'Could you close your book: I need you to *think* about this.'

Maths Year 12

This pre-exam revision lesson with the top set is about integration. Students sit in fours, facing the front. Noticeboards show good displays with examples of students' work. Two complex problems on separate whiteboards represent the hardest A-level questions likely in the exam. Individuals are asked to complete each part of the problems. The group stays focused out of interest and also because they cannot predict when they will be picked to solve part of the problem.

They comment on each other's answers, asking why they are right or wrong.

The teacher regularly checks with the whole class and anyone who looks uncertain whether he has understood. He emphasises the importance of double-checking methodology. A wrong answer is not a major issue: he demonstrates why this is not a stupid solution and works through to show what it could mean in another context. As long as effort is expended and a logical strategy used, students are treated positively. He asks: 'Does anyone want to recap on any thought processes?'

Students ask what questions may come up and he recaps the formulae which may be needed. He gives a question for revision as it builds many techniques into one long solution. The whole class is engaged with the lesson and comfortable in getting involved and interacting with each other and the teacher.

Chemistry Year 13

The lesson exploring colour changes in transmission metals goes at a very fast pace. The teacher uses a blackboard and computer-projected slide show. Frequent questions open to all provoke responses, as well as questions directed to individuals. There is a good dynamic between students and teacher, with mutual support within the group and discussion to clarify points.

Time is given to note taking and drawing diagrams. Some of these are done on the board by the teacher, following students' guidance. Incorrect as well as correct answers are drawn up and discussed so that everyone knows why a

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given answer is right or wrong. Thinking skills are often commended above getting the right answer.

As these observations illustrate, staff are used to linking curriculum development with a pedagogy to meet the needs of all pupils. They sustain momentum but remain watchful for anyone who might be left behind.

Appropriate lesson planning is central. In biology the KS3 curriculum has been 'rewritten'. The aim is not to go faster, but to bring in extra material and opportunities to stimulate students' interests, extending the curriculum beyond the norm expected of KS3 students.

The head of biology described the level of difficulty as 'high and challenging'. Because most pupils do well at most topics, the department focuses assessment on selected pieces of work to see who is 'really really special'. Criteria for these assignments are very explicit. The department had investigated what pupils thought they were being graded on, and found that they were often mistaken. Biology staff now make the marking criteria very clear and consider that boys welcome this and it helps them to do their best.

The level of the new science curriculum at KS4 is said to be 'quite low for our students'. The department is therefore revising its GCSE teaching to make it more suited to the level of work expected at the school. The higherlevel science work has gone well, because boys tend to make great efforts and produce exciting work. At A-level the syllabus does suit the students. Here departmental philosophy is to let sixth formers be themselves. Staff are not for instance prescriptive about note taking, providing students' work in term and exams is good. This flexible approach is underpinned by close monitoring of every student. Grades are clearly predicted; students are aware of their current position and what they must do to achieve their required grades: 'We don't let anyone hover on border lines.' Teachers aim for a fast pace in lessons: 'It's a question really of thinking in the room, understanding it, debating ideas in the room, minimal information, factual information.' Consolidation is a matter for each student after the lesson.

Pupils' competence means that monitoring their notes is less critical than it might be elsewhere. Teachers said that students respond well to marking each other's work. This is also a way to balance time since, as a science teacher explained, coursework is labour intensive for teachers with very committed pupils: 'They do over-write and they fuss about the details.'

Most staff interviewed gave examples of how they take account of the need to challenge students and encourage independent thinking. For the head of classics:

'The last thing I try and do is spoon-feed people, because if you spoon-feed them for an exam, OK they might get the exam results but when they go to the university, they have a breakdown because they won't have a clue on how to cope themselves. So part of my ethos, going throughout the school, Year 7 upwards, is that they take responsibility for their work.'

However these independent learners nevertheless do need and value their teachers. A science teacher recalled an interchange with one very able student:

'He'll say to me, "I didn't do very well in that question because I wasn't taught that; I had to do it myself." I say to him, "Surely, Tom, your level, doing it yourself should be all right." He said, "Absolutely not." Which is a very interesting comment. He said, "No, if you're taught it, you're taught it, but if you read it, you read it." And that I thought was quite a compliment. Because that meant that when we teach them, we're teaching them some other way of looking at it than a book does ... They do value what we teach them.'

Finally, our lesson observations often noted rapport and humour in the classroom, with an easy interchange between pupils and staff. One teacher explained:

'I try and make sure that everyone in the class has a good time and a bit of a laugh ... because then they'll enjoy the lessons, they can participate freely in the class without feeling threatened ... I like relatively high-octane lessons – large character at the front of the room to try and really draw them in.'

Distinctive features

As a 'specialist environment for the very able', the school has in place extended and enriched curricula, but does not openly demarcate the few students who might not technically be defined as gifted from their classmates. The reasons for this policy are that the values of the school apply to the teaching of all pupils and concern for the effect of labelling on student self-esteem.

Lessons move at a fast pace, aim to be challenging and are deliberately pitched for very able students. For those who need it there is additional support in different forms. Although a number of older students needed targeted support in English, there is no substantial variation by ethnicity in attainment. Academic achievement is very high at all stages; over 50 per cent of leavers go into medical sciences, with one in five going to Oxbridge colleges. OFSTED reported that 'having to teach a concept only once means that a huge amount of work can be covered in a single lesson, so that lesson time is used extremely well.'

The pace of school life seems extraordinarily fast, with short lessons. Seven periods a day are fitted in, and break and lunch hours are dominated by

activities for many students. The 'breathless pace of life at the school' suits able boys as it keeps them energised and prevents loss of concentration.

There is a range of extra provision, such as S-level papers, individual tuition in music, top-level competition in sport, and further maths for students. However, teachers more often pointed to the standard expected in regular lessons, which consistently stretches all pupils.

The well-qualified staff have extensive specialised subject knowledge. Subject teachers are often role models and there is a strong bond between pupils and staff. A mutual respect and trust exists between staff and students – a contract upheld by both parties. Its success in this school may be partly explained by the perceived privilege of being selected for it. The pride pupils and staff feel in their success is tangible. Success in any domain is well respected. Since 2001, ongoing work on teaching and learning styles has widened the repertoire of staff. There are rigorous subject reviews and teachers observe each other's lessons.

The way that teachers handle incorrect answers is interesting. To stretch high-ability pupils they provide challenges and these inevitably lead to occasional failure. However, the teachers observed seem to commend thinking about a problem logically and venturing an answer above actually getting the right answer. Such an ethos throughout the school helps explain why students appear comfortable being so consistently challenged and stretched.

Tutors hold regular discussions with students, who make written contributions to their subject reports, and sixth formers' achievement is measured against teachers' predictions. Some teachers emphasised consultation with parents, who clearly provide support and have high expectations. The school is focusing on how best to sustain communication with parents as not all subscribe to the e-link available to them. While departments already track pupils' progress and set targets for them, ongoing work using various data sets against baseline information aims to provide a clearer picture of the value added during a boy's time at the school.

Pastoral and academic mentoring is a strength of this school, where selected sixth formers mentor pupils in Years 7 and 8 outside lessons in English and mathematics. The structure of extra-curricular activities and the house system seems to foster a well-integrated school environment where there is not too much division between year groups and a sense that students take much of the responsibility of supporting each other. Competition between houses seems healthy and positive, motivating students and adding some extra excitement to activities.

Liaison with other local schools offers experience to sixth formers and support to those schools. Opportunities for community work, entering competitions and working with other agencies help develop confidence and maturity. There are hardship funds for pupils who are socially disadvantaged.

Case study 7

Teaching and learning in an online reading group

Background information

In August 2004, an online reading group was established, initially as a pilot scheme, to provide a learning environment for NAGTY members. The conversations taking place among the students on their general discussion forum about the novels they were reading prompted the decision to set up an online group devoted to reading and discussing literature, where the students could engage with academics working in the field. Dr Sarah Dauncey, an academic specialising in English literature, convened this group, directed the content of the forum and analysed its progress in quarterly reports. She worked alongside another academic tutor who helped moderate and facilitate discussions.

From the start, in view of the experimental nature of the project, critically evaluating the nature of teaching and learning in the group was given high priority. In order for it to remain both an appealing and stimulating intellectual space for the students, it was important that its educational content and structure, its long- and short-term objectives, and the practice of teaching were all subjected to scrutiny.

This chapter outlines some of the key issues and dilemmas that have faced the group since its inception, relating to virtual learning and pedagogy. They fall into six main categories: Organisation and objectives; Membership and contributors; Literary content and pedagogy; Gendered engagement; Evaluation of the students' contributions; and Strategies to increase students' participation.

The overall purpose of the evaluation was to provide lessons for others involved in online learning, drawing out both the achievement and the mistakes made, so that others might be better prepared to negotiate the challenges of supervising a virtual learning environment for gifted and talented students.

Organisation and objectives of the online reading group

By 2006/7, the online reading group had been running for over two years and had 750 members aged between 11 and 18. While not all of these members

were active, thus rendering it an unreliable statistic by which to gauge the overall participation in the group, it could be considered to be successful in terms of the consistent way it attracted students to log-on, read the pages, and contribute messages in their spare time. It had, therefore, moved far beyond the pilot stage, and, as one of the first online academic study groups established by NAGTY, it provided something of a template for those constructing new forums.

However, the original objectives of the online reading group were significantly revised. The initial objectives did not sufficiently take into account the singularity of an online learning environment and the dynamics of an open and informal virtual community affording students the chance to play a substantial role in directing the overall tone, content and goals of the group.

One of the key objectives for the reading group, conceived before it opened to the students in the summer of 2004, was to 'stimulate structured discussion of texts' by 'introducing' the students to two novels and some poetry each month based around a set topic. In part, this was a response to a broader NAGTY objective to challenge gifted and talented students by advancing their knowledge and analytical and discursive skills.

The first topic was 'the environment' and the novels and poetry under discussion were Peter Beagle's *The Last Unicorn*, Yann Martel's *The Life of Pi*, and Alice Oswald's *Dart*. Alongside the aim to structure the reading around a particular topic was the ambition to introduce the students to new authors, particularly those from different historical and cultural contexts, to widen their understanding of literature. However, it soon became apparent from the threads that the students established themselves, called 'Favourite book of all time' and 'Best read', that they wanted to talk about the books they had read instead of the ones chosen. Further, when they did contribute to the threads open on the month's set novels, they wanted to chat about their own impressions rather than be restricted to questions focused on a particular topic.

Dr Dauncey summed up these changes as follows:

'It was clear that I was imposing my agenda for the group (influenced by teaching seminars at university level) and not registering the students' expectations, interests, and, in a sense, requirements. By the third month of the group's history, I had changed the reading list to include titles by young adult authors recommended by the students. This was a major adjustment to my original vision for the group whereby I had sought to introduce the members to unfamiliar literary writers in an endeavour to inspire "gifted" readers. My preconceptions about "giftedness" together with what constitutes challenging reading, had influenced my pedagogy and obscured my grasp of the students' needs. They also hindered me from recognising the distinctiveness, along with the transformative potential, of virtual learning. Accordingly, by altering my vision and recognising the importance of the students being granted the space to define the group's

identity and objectives, it became a different place to the one I had originally envisaged – one that was far more collaborative, fluid and informal.'

From the beginning, the reading group developed a hybrid identity. Because of the cultural popularity of reading groups, many of the students would have had preconceived ideas about being a member of such a group before joining. The term conjures up images of socialising with others who share similar interests and suggests informal learning. Yet, because of NAGTY's national status, combined with the way the reading group had been labelled an 'academic study group', more formal images and associations were also attached to it. While this hybridity went some way towards accounting for the tension between the tutor's objectives and those of the students in the early stages, it also offered a more long-term explanation for some of the students' reservations about the group and their role as members. It is possible that this ambivalence surrounding the group's identity and purpose had a big impact on the students' engagement with it. In particular, it raised questions about the extent to which their preconceptions determined the content and style of their posts and, perhaps more significantly, their decision not to post.

The reading group ran on the Warwick Forums system, which was originally designed to accommodate the needs of a relatively small number of adult users. Hence, from the beginning, it was recognised that this was not the most appropriate technology to foster a community of young readers. The technology limited the kind of learning that could be achieved on the forum. It regulated both the students' and tutors' thinking and capacity to relate to one another. It was also austere in appearance and compelled a linear, monological approach instead of initiating creativity in more innovative spatial and dialogical ways. Consequently, the technology could be seen to circumscribe the potential of the group to fully capture the students' interest and imaginations. It might also have played a role in replicating the power dynamics of the classroom (an issue that is discussed further below), thereby restricting the group from fully capitalising on the opportunities afforded by the Internet.

Each month, the group discussed two novels from a reading list which was published some six months in advance. Because of the wide age and ability range of the membership, one novel more suited to the younger age group and those less advanced at literary studies and one more appropriate for the older or more able students were selected. The students could choose to read as much or as little as they wished. By giving them notice of the novels that were to be studied, they were able to dip in and out of the forum depending on what caught their interest. The reading group thus appealed to intermittent, as well as regular, users.

However, this flexibility and informality had both positive and negative effects. The irregularity of students' involvement – the diversity of their level of commitment – combined with the constant influx of new members, disrupted community formation. Instead of a collection of students signing-up for

a course together in one intake, for a finite length of time, the reading group was continually receiving members who were able to contribute whenever they wanted to.

Moreover, significantly, it was not goal-oriented; the students were not required to meet any specific learning targets. The open-ended nature of the group was at once its most positive and most troublesome feature. In a target-driven mainstream educational culture, it was a virtually anachronistic educational environment, by virtue of its adherence to a code of 'learning for learning's sake'. Accordingly, some of the students might have felt a little estranged in this virtual space, instead preferring greater transparency over learning outcomes. Practically, it was also difficult to manage a group that was in such a continual state of flux. It was hard for a strong sense of community to develop and endure, given its continuously evolving formation.

In view of the fact that many students might be deterred from getting involved with the group because of the high level of commitment it demanded, reading one or two novels each month, the tutor experimented with ways of getting them thinking about literature without requiring too much time or preparation. Such measures could be seen, once again, as consciously straying away from the original objectives for the group, as a space for the discussion of books. Nevertheless they were a response to the students' struggle to keep up with the demands of both schoolwork and the forum. It turned out to be unrealistic to expect the members to read one or two novels every single month, and thus the group had to adapt according to the students' needs and desires.

In fact, the students themselves came up with ideas for a couple of threads ('Book Suggestions' and 'Literary Issues') that would enable them to get involved in discussions on a day-to-day basis, without having to read the set novels. The 'Book Suggestions' thread gave the students the chance to name the titles they would like the group to read together. They were invited to explain the reasons why they nominated a particular book in order to capture the convener's interest and that of the group as a whole. Many of the titles recommended – those that were suitable for the age group – went on the reading list. The thread helped the students to feel involved as they played a large part in directing the forum's content.

On the other hand, the 'Literary Issues' thread was opened in response to a request from a student that there should be a space for the discussion of topical issues. This student posed the first question and it immediately proved a popular thread. Students were invited to e-mail questions to be posted on this thread, but no one responded. As a result, since it first opened in September 2005, it was the convener who formulated and posted questions for the group to discuss each week. Despite the thread's dynamism and capacity to advance the students' discursive and analytical skills, it had not been the kind of self-contained, student-led initiative first anticipated.

In order to generate a friendly and welcoming atmosphere, especially as the group received new members on a regular basis, there were a number of 'chat'

threads opened alongside the more overtly 'educational' ones, for instance: 'Hello! and Chit Chat', 'Favourite book of all time' and 'Most loathed characters of all time'.

Dr Dauncey adopted a responsive mode to these chat threads:

'At first, I was intent on keeping the students' attention solely on the set texts. I was concerned about the amount of time they spent posting on "chat" threads rather than the ones open on the novels. But, it was soon apparent how important these spaces for "chat" were to the group as a whole, both in terms of community formation and educational development. They bolster a sense of community while also increasing the students' independence and advancing their critical and communication skills. It is vital that the students feel comfortable posting messages on the forum, whether they are responding to questions or initiating discussions, and informal threads can provide a place for them to develop their voice and confidence before going on to comment on the set novels.'

Salmon (2003) notes the importance of socialisation for online learning. She suggests that moderators should actively intervene and devise ways to get the students talking to each other. According to her, it is the 'e-moderator's intervention' that causes the 'socializing to occur' (Salmon 2003: 33). However, as her analysis of online socialisation is directed towards the teaching of short courses, its relevance for the online reading group is limited. For Salmon, socialisation is a stage-two process in a five-stage educational model. Socialisation is, therefore, viewed as a necessary stage on the way to the later stages of 'knowledge construction' and 'development'. In contrast, in order for the reading group to remain welcoming, interesting and challenging academically, socialisation needed to be ongoing. Salmon's chronology does not translate easily to the circumstances of the reading group. The constant influx of new members and the absence of specific targets, combined with the group's hybrid identity (at once 'fun' and 'academic'), meant that it remained resistant to such systematising. A more fluid and synchronic model was needed to try and account for the way that learning took place in the group.

Membership and contributors

Despite the large membership of the online reading group, only around 38 per cent of the members posted a message on the forum. Over the course of the two years since the group first opened, it had become apparent that there was a direct correlation between the size of the group and the percentage of students contributing. For instance, in March 2006 when the group was at its largest with 1,017 members, the percentage of students who had made a contribution fell to 36 per cent. Whereas in June 2005, when there were 594 members, 41 per cent of the members had posted a message. The difference in proportions

is not large, and the absolute numbers posting in the larger groups were of course more than in the smaller, but once the group grew too large it seemed to become a more intimidating space for the students, discouraging posts and hindering socialisation. Students were able to view the membership statistic on the forum homepage, so it may be that their awareness of the size of the group had an effect on their level of contribution.

A key ambition, since the group first opened, had been to encourage more members to take part in discussions on the forum. The fact that only a relatively small number of students were active participants prompted questions about the educational value, and cost-effectiveness, of the group. Did enough students benefit from the group to make it worthwhile? Or was it only a space providing encouragement, support and stimulation for an elite few? In the spring of 2006, the statistics on the number of silent participants went some way towards allaying these concerns. In April 2006, for example, there were 1,235 reads recorded and only 133 posts. Although the factors deterring students from posting needed further investigation, it was nevertheless important to recognise the group's large audience and to take note of the role it played in influencing students' reading and learning, even though they might never have posted a message on the forum. In addition, the relationship between the silent and active participants needed to be examined, especially the extent to which 'lurkers' deter posters.

Notably, in January 2005, 122 new students joined the forum while it was offline over the Christmas and New Year holidays. This large intake transformed both the tone and structure of the group. The timing of the entry of new members was unfortunate; it had the effect of displacing the existing members who returned after the break to discover the prevalence of new voices and personalities. Where previously a core group of frequent female posters had dominated the forum, influencing both its content and culture by establishing a particular style of post, from January 2005 the community became more dispersed and convener-centred. The female students who had established a normative mode of conduct and discourse on the forum ceased to be influential. In fact, they stopped posting altogether. Whereas in the past, the students who were most active on the forum led the way, by initiating discussions, from January 2005 the students increasingly turned to the tutor for direction. Frequently, tutor intervention was required on the threads to keep discussions going.

This change from a student-centred to a tutor-centred model might well be viewed in a negative light: it meant that the forum replicated classroom relations; it made the students less self-sufficient; and, more crucially, it suggested that the singular possibilities of the Internet were not being fully exploited. Yet, the student-centred model was not without its problems. In its own way, it was equally undemocratic. The dominance of a small number of female students alienated the male membership and discouraged a plurality of viewpoints. Discovering the most suitable structure for the group proved theoretically

difficult, and, in reality, it was a process that was largely beyond the convener's control. The original student-centred structure was undermined by the assertiveness of a core group of frequent users and was subsequently re-instituted, without the tutor's awareness, as a result of their absence from the forum.

Literary content and pedagogy

The large age range of the group (11–18) led to difficulties finding novels that were suitable and appealing to all. Although the decision to set two novels a month had gone some way towards providing for the group's diverse membership, in terms of age, ability, and interests some students inevitably became disengaged as a consequence of the texts chosen for study. The numbers of posts contributed on the threads open on the set novels from 1 December 2005 to 1 June 2006 are shown below in Table 9.1.

The statistics provide an indication of both the range of fiction discussed and the popularity of certain genres. (February 2006 stands out as the first and only month when the group studied two novels by the same author. This is because Kevin Brooks attended a reading group outreach event in March.)

The three most popular novels, *The Subtle Knife*, *Harry Potter and the Chamber of Secrets* and *Sabriel*, are all fantasies. The other titles that generated significant interest are well known, from popular culture and the school curriculum respectively: *The Da Vinci Code* and *To Kill a Mocking Bird*. The novels by Kevin Brooks did not prove as appealing as had been hoped, especially given that a number of students recommended his novels and that he was to attend an event for the group. This may have been because he is not as well known as the other authors on the list and his fiction is more suitable for the younger age group, 11–15.

Classic novels, particularly those by more unfamiliar authors, have proved consistently unpopular over the last two years. The pattern that emerges from

| December 2005 June 2000 | | |
|-------------------------|--|-----|
| December | Philip Pullman, The Subtle Knife | 105 |
| | J. K. Rowling, Harry Potter and the Chamber of Secrets | 127 |
| January | Dan Brown, The Da Vinci Code | 48 |
| | Bill Bryson, A Short History of Nearly Everything | 31 |
| February | Kevin Brooks, Lucas | 25 |
| • | Kevin Brooks, Martyn Pig | 20 |
| March | Emily Bronte, Wuthering Heights | 24 |
| | Garth Nix, Sabriel | 65 |
| April | Harper Lee, To Kill a Mocking Bird | 35 |
| | Louis de Bernieres, Captain Corelli's Mandolin | 18 |
| May | Anthony Horowitz, Point Blanc | 26 |
| | Arthur Conan Doyle, The Sign of Four | 15 |

Table 9.1 Posts on threads open on particular novels, December 2005-lune 2006

these statistics regarding the students' tastes can be considered to be representative of the forum since it opened. Consequently, as fantasy fiction might be regarded as less academically challenging than many of the more unfamiliar or classic titles, it might discourage the more able students from getting involved in discussions. Moreover, the fact that fewer students took part in the threads open on the more challenging novels meant that discussions were less dynamic — further deterring students from participating. The study of two novels a month, therefore, did not necessarily resolve the problem of appealing to all ages and abilities; questions continued to face the reading group over its objectives: should it try to appeal to the majority of its members or strive to capture the attention of the highest flyers? Despite aspirations to attract a diverse cross section of the membership, in reality it is likely that the reading group had a very particular audience.

The uncertainty over whether or not the forum should have been devoted to popular or literary fiction stemmed from, and at the same time reinforced, its hybrid identity. This structural issue could account for some of the students' reluctance to post. It is conceivable that many were confused about the overall purpose of the group. With hindsight, perhaps more information should have been available for the students before they became members. For instance, details could have been given about: what the students could expect to achieve by being a member; what was expected of them in terms of style and content of post; and what it meant to be part of a virtual community of readers. Greater transparency might allow the students to recognise the value of the learning taking place on the forum and be conscious of the skills they can develop by being an active participant. The availability of such information might prove constructive for the group in two ways: it could deter students from joining the group in a casual fashion, thus ensuring that those who did sign-up were more committed and aware of their responsibilities; and it could bolster the students' confidence and increase the number of contributors.

The hybridity of the forum also determined the style of posts contributed by both the members and tutor. Before it opened in 2004, and in the first few months, students were encouraged to write fairly lengthy messages, around three or four paragraphs in length, in a formal style. Dr Dauncey explained:

'I expected the students to use quotes to support their interpretations and to advance their views in a systematic and thorough way. Basically, I was anticipating the forum to be a space for the exchange of mini-essays. I soon became aware that my goals were unrealisable because they did not register the singularity of an online environment.'

Nevertheless, the students were able to demonstrate analytical thinking and to convey complex ideas in a compact and informal way. For example, this message was posted in response to a question asked on the probability of the events of Orwell's *Nineteen Eighty-Four*:

<<i think that in some ways, yes, the events described could be quite likely (look at the nazi regime, and the communist regime, on which i think this novel is based) but i think they have been exaggerated in this instance, to make the book more full of conflict and frightening etc.>>

It is easy to overlook the insights contained in such a message; the chatty and casual mode of expression belies the level of critical thinking that has taken place. Not only did the poster view the novel in comparative terms, but s/he recognised its strategies to position the reader. The value of this form of expression is particularly easy to disregard when it appears alongside more conventionally scholarly posts, like the following:

<<The thing that strikes me most about the ending of the book – something that plays back to the rest of the book as a whole – is the fact that Orwell is not telling us about a unique struggle. Winston Smith is an everyman character – highlighted by his common surname (although calling him Winston, a name that even more so in 1948 suggests the fighting spirit and ultimate conquest, indicates that Orwell believes this fighting is good in line with what James said). There are millions of other Winston Smiths – maybe everybody is rebelling, but doing so in secrecy allows the society to hold. This is a case study – a warning for anyone who messes with the Party. Orwell hints at others' rebellion in Julia and Syme; I've been reading Margaret Atwood's 'The Handmaid's Tale' – this describes a dystopian society in which everybody's rebellion seems slightly more obvious (Then again I'm not finished, they might all be spies …)>>

This post exemplifies the kind of contribution originally sought. Yet, in practice, such posts often disrupted the flow of conversation on the threads and discouraged others from posting. In contrast, messages like the first example above that were conversational in tone were less intimidating, thereby paving the way for future debate. It was this type of post that was more productive for the group overall. Accordingly, close scrutiny of its form and discursive style are necessary to attain a better understanding of the possibilities of online learning.

After recognising not only the prevalence of concise, MSN-style, messages but also their potential to contain complex thought and generate dynamic threads, Dr Dauncey amended her own teaching practice, though as she noted it raised as many questions as it solved:

'At first, my posts were relatively lengthy, they established an issue for consideration, drew on the novel under scrutiny to substantiate my argument, and posed one or two questions for discussion. I regarded myself as establishing a model of how I wanted the students to express themselves on the forum. However, it was the members who came to establish the

normative mode of discourse and I followed their example. My messages are now, in the main, short, chatty, and to the point. Rather than asking several questions in a single post, I restrict myself to posing one at a time, so that what I am asking of them is more transparent. This also means, in theory, that the threads are more dynamic: new questions appear on a regular basis and the likelihood of students contributing is increased as less work is required of them with regards to formulating messages. Nevertheless, the change to my teaching practice gives rise to a number of issues: to what extent do I reinforce the sense that the Reading Group is "fun" rather than "academic", thus alienating those members who anticipated a more formal and conventionally intellectual environment? Have I consolidated gender inequality by emulating the core female posters' style? Finally, am I promoting a form of thinking and writing that challenges, rather than strengthens, the skills taught in schools that prepare the students for university?'

Gendered engagement with the membership

There were significantly more female than male members in the online reading group. Within a few months of the forum opening, it became female-dominated. The core group of frequent posters who were influential in establishing the culture of the forum and who also directed its content were all female. The rapport among these active students, combined with the tutor's investment in their style of discourse, fostered a strong sense of group ownership which may have alienated many of the male members. A number of threads did not receive a single contribution by a male student.

In part, this situation reflects a national disparity between the genders in reading and studying literature, but in the reading group particular differences emerged between the way male and female students tended to express themselves. Furthermore, the concise, chatty, form of messaging that prevailed, with the advantage of its inclusiveness, could be conceived as peculiarly feminine. This is a message contributed to the thread open on *Harry Potter and the Philosopher's Stone* by one of the most active female members:

<<Ok. I emailed this a couple of minutes ago, but the forums were still closed, so I'll just copy and paste. Sorry if this message comes through twice!

>"I'm going through that trapdoor tonight and nothing you two say is going to stop me! >Voldemort killed my parents, remember?" (Ch. 16)

>Do you think that Harry is acting emotionally rather than rationally at the end of the book? >Does he just want to 'get his own back'? Is that a good or bad thing? By focusing on Harry's special abilities to combat evil, do we neglect to assess the psychological factors behind his actions?

I think that Harry's kind of foolish. He knows that Voldermort killed

his parents, and many others, and was even a 'Dark Lord', with people too scared to say his name. Yes, Harry 'defeated' him once, but that could've been a stroke of luck; a fluke. What makes Harry think that he can do it again? Why does he believe in his own 'power' to defeat this evil wizard so much?>>

The conversational style of the post is typically feminine, according to Dr Dauncey. Despite its friendly and apologetic tone, the message is assertive and demonstrates an astute grasp of the text. This form of communication was particularly productive in a virtual space because of its awareness of, and appeal to, others. Additionally, by generating new lines of enquiry, it enabled the students to be more independent, allowing them to take control of their own learning and become less reliant on a tutor. Hence, it functioned as a catalyst to a more collaborative approach to thinking about literature — one it was hoped that the online group would foster. This informal, chatty and feminised modality is singularly suited to an online learning environment. In contrast, the majority of posts contributed by male members tended to be more factual and less dialogicial. For instance, here is a post by a male student on the same thread:

<<Does he just want to 'get his own back'? Is that a good or bad thing? Of course he does – at this stage in the series he is only acting becuse he CAN not because he MUST. Having studied "Hamlet" I can see truth in this view but feel compelled to condemn Harry for doing so – "vengeance is a dish best served cold" (I know I took that from "Kill Bill" but it's appropriate). He's not so pensive as the Royal Dane and therefore is, in Bk1, too irrational. Acting on instinct and situation is not the sign of a destiny-led hero.>>

This message is target-driven; it is solely focused on responding to the question. The previous post had embedded in it a dual purpose, to be both sociable and analytical, whereas this contribution was purely analytical. The poster did not attempt to initiate dialogues with other members and the confidence with which he posed his views could be regarded as intimidating. This type of post often disrupted the flow of discussion, calling for the intervention of the convener to help reignite debate. The issues surrounding gendered modes of communication require more study, especially in view of the significance of socialisation to online learning.

Strategies to increase student participation

The different learning strategies that the group explored in an endeavour to inspire the students and increase their involvement on the forum are worth reflecting on. In 2005, a period of holding synchronous discussions each month

on one of the set novels was initiated. Although the number of students taking part in the live debates varied, in general they behaved differently during them — as though the dynamics or rules of the forum had somehow changed. Specifically, they were more independent, chatty and sociable, and exhibited greater confidence in themselves, generating their own questions for discussion. This suggests the extent to which the students' behaviour on the forum was conditioned by both its structure and their preconceptions.

In 2006, the students were invited to open the discussions on the set novels each month to encourage them to be more independent and recognise their responsibility to the community as a whole. In the spring of 2006, the group held its first online reading group book award. This provided a way of getting the students thinking critically about what makes an award-winning book, at the same time as encouraging them to take an active part on the forum. Two outreach events for the group were organised in order to raise its profile and to appeal to the members who preferred more familiar learning environments. Significantly, the majority of students who attended the events were not active on the forum.

As a long-running group, it was easy for the online reading group to become static and routine. Hence, it was important to continue to apply new methodologies to make the group as intellectually stimulating and dynamic as possible. Future plans for the group included collaboration with a Department of English and Creative Writing at a university which has established virtual cross-cultural programmes, to create links with students in Africa. By facilitating a cultural exchange of ideas and perspectives on literature, the provision of learning opportunities for the members that would not be possible in a classroom could be realised. But, alongside these projects, it was also necessary to begin to formulate a long-term vision for the group that recognised the full potential of online learning and intersected with wider goals for learning by gifted and talented students, to secure the future of a network of young readers and a virtual exchange of ideas.

Case study 8

Effective teaching and learning in residential summer schools

Background information

From 2003 to 2007, NAGTY brokered residential summer schools of two or three weeks' duration for its student members. Courses of study, called 'strands', were designed by the staff who would teach them, and students admitted to the schools were able to opt for the strand that suited their interest. The arrangements for teaching were normally that a team of three tutors, comprising a university academic, a school teacher and an assistant tutor (often a teacher in training) planned and organised the teaching and learning for about 18 students who had opted for the strand. The summer schools had been inspected by OFSTED on two separate occasions, and had been rated in both as outstanding for the quality of teaching and learning.

During the summer of 2005, the summer schools were offered at eight universities and evaluated by an independent research unit, the Centre for Educational Development, Appraisal and Research (CEDAR), at the University of Warwick. Material from this evaluation, which included direct observation of teaching and learning, and interviews with tutors and students, formed the basis for this chapter. The evaluation focused on seven strands judged to represent particularly effective teaching and learning and to cover a wide range of subjects. The strands were: Anthropology; Philosophy; Robotics; Creative Writing; Drama and Theatre; Law; and Physics. Four universities were involved. We have chosen two strands to illustrate the nature of teaching and learning – Robotics and Drama and Theatre – but we could have used any of them. The full report is available online at CEDAR, University of Warwick (http://www.warwick.ac.uk/go/cedar).

Robotics: Autonomous Control

The session we observed was on the second Thursday of a two-week summer school, and the students were making final preparations for their participation in a 'Mission to Mars' competition that was the strand focus throughout the summer school. The Robotics: Autonomous Control strand was working

separately from, but in parallel with, a Robotics: Engineering strand, which was also focused on the 'Mission to Mars'. The mission would involve the students' robots exploring a simulated Martian landscape, and recovering 'rock' samples from its surface.

The session took place in a very large assembly hall which was laid out in preparation for the competition. In the centre of the hall, a geodesic dome acted as the command centre, from which the students would control their robots in the competition. The Martian landscape itself was hidden from view behind a large screen. The landscape was made up of a series of ramps and platforms, becoming progressively more difficult for vehicles to navigate the further into the terrain they went. Scattered across this terrain were 'rocks', each carrying a number. At the opposite end of the hall were tables, overseen by an adult technician, which held spare parts, robot kits and equipment which the students could draw upon. The students themselves, in small groups of four, were engaged in refining their robots in preparation for the competition which was to be held the next day. The strand leader was available for help and advice, and the qualified teacher was observing the teams and taking notes to help build the students' post-course reports. In addition, the post-graduate assistant was present, using a laptop computer to develop the final details of the competition.

The students were totally engaged by their task in a purposeful, calm atmosphere supported by outstanding resources, the availability of high-cost equipment, and the number of adults present. The students were relaxed, but excited and motivated by the forthcoming competition and their tasks. They spoke freely, and with confidence, about what they were doing. They were trying to iron out problems that they had discovered with their robots. They were engaged in hands-on problem-solving, and they were learning by trying things out, making mistakes, and trying new approaches. They were aware that they were engaged in an exciting learning process.

Planning the strand

The strand leader felt that the central planning issue was how to structure the two-week course: 'I mean, it's quite a portable structure, really. The structure stays the same from summer school to summer school, so that it's so well tested by us, and we just find that it works.' The nature of robotics meant that there were inbuilt constraints on the way in which the final product could be constructed, but this limitation was also an opportunity, in that it enabled flexibility to be built into the course:

'I was involved in the Robotics: Engineering strand, as well as the Robotics: Autonomous Control strand for the planning. It's tricky, because we've got a specific way of learning robotics, you know, it's not like, "Which experiment shall we run?" It's, you know, we've got the kit and we've got the materials, the resources, so, it's all about how we structure the two weeks.

The first week I wanted to be the team building, finding out what the students were like, finding out what they liked, how they worked.'

As all the work by the students was to be undertaken in small teams, two days at the start were spent on team building, where the students from both robotics strands (Engineering and Autonomous Control) built the geodesic dome in the assembly hall, and built and used pneumatic rockets. These exercises were essential to the success of the teaching and learning experience. The strand leader also built into his plan a series of possible developments for the first week, seeking to anticipate the directions in which the students might like to develop their activities. His advice for people in his position was:

'Prepare for the different age ranges. Have a number of back-up plans, have a number of different approaches ready. I think it's really important to get to know the kids before making the final decisions. I know you can't do that in some areas, but, we're fortunate we can do it in robotics ... I am aware of those [possible] situations and, therefore, I would be prepared with links, documentation, books, and whatever resources I need.'

This preparation for a range of possible student responses enabled him to have a high degree of student input into the direction of learning. Furthermore, although the summer school offered two, apparently discrete, robotics courses, focusing on the engineering and programming aspects of robotics, both strand leaders planned for students to be able to shift from one strand to another, if their interests took them to that decision. This was possible because the students and staff in both strands were working in the same, very large, space, and had cooperated in building the 'control room' – the geodesic dome. The strand leader explained the rationale for this:

'We were leading separate strands, and we found that a lot of the students would like to learn the other area of robotics, which is very much split into two – engineering, you know, putting the stuff together, putting the wiring on, making the nuts and bolts robot, and then controlling it. So, to give a student a well-rounded idea of what robotics is they should really, I think, see both sides of the coin. And to build something that works, of course, they're going to be inquisitive about how they control what they've just built, or how they build what they are able to control. This is why a lot of them have asked whether they can go to the other side. And I think that's worked very well.'

The physical resources available to the strand leader were key elements in enabling a flexible and thorough course to be offered. He was able to draw upon an extensive range of physical components, and computer hardware and software:

'It's the materials. Because I've worked on this for three years now, we've spent that sort of time building up our resources. We started with robots, I've been to a few conferences in America, educators conferences, and we've come across various kits, so, yes, the resources are crucial – gears, kits, and the first robot, which was used at a big international competition that ran in March this year, so we're using that. And, they've got radio controls, they've got the autonomous control with the laptops. It is only something you can run if you've got a lot of the right resources.'

In addition, the strand needed a teaching space that would enable all these elements – team working, mixing between the two strands, construction activity, and the competition itself – to be combined.

Working as a teaching team

The teaching team was made up of a number of adults, each with courserelated skills and knowledge, and teaching training or experience. The usual summer school model of strand leader, qualified teacher and teaching assistant was adopted, with the different members of the teaching team being clear as to their differing roles. The strand leader explained his view of his role in comparison to that of the qualified teacher:

'I like handing over some of the responsibility to the teacher and me not having to think about things like, sometimes, you have misbehaviour, and, you know, the academic shouldn't be there to fire-fight, and control – that sort of thing. But it's not just discipline – there's no problem like that on this strand anyway – you've got teachers in support, to help in terms of their knowledge of maths and physics.'

This picture of the roles of teachers and strand leaders was confirmed and elaborated by the qualified teacher, who commented:

'The teacher's role, I probably think, is overlooking what they [the students] are actually doing, picking up kids that are probably not doing too much, monitoring their log books, making sure things are recorded, it's more really supervising and helping them learn. And if they do have any questions, to help answer them, more so now in the project work, to make sure things are organised, encourage them to organise themselves. Whereas the academic leaders tend to take care of the course material, we just make sure when it is delivered that everyone is kind of paying attention, and they do know what they are doing. Also, just picking out kids that maybe floating, not sure what they're doing, getting them engaged, and all that kind of thing.'

These aspects of the team's provision were enhanced by the use of the graduate mentor with specific knowledge and skills in the area of robotics. The physical environment of the Great Hall, the resources available, and the team-based learning of the students ensured that the various teaching team members were able to fulfil their roles effectively. They all had an active part to play in facilitating the robot planning, building, programming, and testing tasks faced by the students.

By the second week of the course, the students were essentially in charge of their own learning, which was something that the qualified teacher commented upon:

'Your role [as a teacher] is to overlook everything, to make sure the kids are engaged, they're working, there's learning going on. It's not very high-pressured, because we're dealing with the gifted and talented kids, they mostly get on with it themselves.'

The success of the teaching team was not however, simply a product of their awareness of the different roles, or the fact that they were dealing with a specific group of highly motivated children. A further, essential, ingredient was the good working relationship that existed between all the people in the teaching team.

'They've worked on other summer schools this year, in other places, so we've got plenty of time to sit down and talk about it. And I make sure they're comfortable with their roles, and vice versa, and they know their roles, and I know my roles, so, we just get on with it, really, it's just quite a friendly atmosphere, which is always quite nice for the students to pick up on as well' (Strand Leader).

The Robotics: Autonomous Control strand was, therefore, characterised by a teaching team in which each member was clear about their role, had a good working relationship, a flexible, but planned, programme, and a value commitment to allow the students' learning to take centre stage.

Teaching and learning

The students' descriptions and analysis of what made teaching and learning successful on the summer school matched closely those of the teaching staff. The students identified four key areas that made the learning experience valuable, and which reflected good teaching practice. These areas were: the ethos created in the strand; the tasks that they were given to do, and the way those tasks were assigned; freedom of choice for them as students; and the peer group they were working with.

Ethos

The students contrasted their usual experience of formal education unfavourably with their experience of the summer school. Essentially, they felt that the summer school atmosphere was highly conducive to learning:

'They [summer school teaching team] just talk to you, and they just talk to you like a normal human being.'

'Here if you get stuck or anything, they're always willing to help you out, they don't just shout at you for not knowing ... And they're not strict [at the summer school], like saying, "Don't talk!", and "Silence!" and everything.'

The students felt that as a result of these differences the atmosphere was much better, something that the strand leader noted too:

'In terms of how I've created that environment – I don't know, it just naturally happens. It's just, I think it's just created because everyone working in that environment is very linked together, very friendly atmosphere, so it's a very easy-going atmosphere, but, obviously, with rules, with specific workshop rules [health and safety rules], and, obviously, you know, being able to provide all of those resources.'

The students agreed that it was about 'everyone working in that environment being very linked together', but the strand leader was perhaps being too modest about his own role in creating the friendly, learning-conducive environment.

Freedom to make learning choices

The students felt that, in addition to being treated 'like normal human beings', one of the other factors that created a good learning environment was the freedom they had to find their own groups to work with, and to choose, especially in the second week, how they were going to progress. This self-direction was attractive to the students, one saying: 'I like the way they just let you get into your own teams, so that you can get to know people, rather than just saying, "You go with them".'

Peer group

In 'getting to know people', the students felt that one more factor had been added to the good learning environment – the nature of the peer group that they were with:

'It's essentially a lot more hard work than at school, but, I think the only reason, you know, it's not really like school because everyone who's come here actually wants to come here, and wanted, you know, to do the work, so it's a lot more efficient in that sense.'

The strand leader saw didactic teaching as only a small aspect of the course. It was necessary, especially in the first week, to explain key ideas and techniques. It was done with the clear intention of enabling the students to create things – such as the geodesic dome and the rockets. In the second week, the strand leader saw the essential experience as being overwhelmingly a student-directed learning experience, with the staff being there to provide essential briefings and to act as advisers when called upon by the students:

'They just want to feed off the information, they're very much learning for themselves, and I'm not teaching them, which is great, perfect ... and I'm sort of stood there, as well, thinking this is ideal, this is what it's all about. They're just learning how to do things by themselves.'

One of the students commented: 'I think it's more involving here, because they let you work out things for yourself, instead of just saying, "There's a worksheet, work your way through it".'

Drama and Theatre

Introduction: setting the scene

In the Drama strand session we observed, there were 20 students present (13 girls and seven boys), along with the strand leader, the qualified teacher and the teaching assistant. The session took place in a drama workshop room, which comfortably accommodated the group. The students sat in a circle, while the strand leader outlined the programme for the day.

Following the briefing, there was a 20-minute warm-up period when three students, in turn, ran exercises for the entire group. Each lead student organised and ran an activity, which the group entered into with enthusiasm. They were clearly familiar with this way of starting the day, and all the students were fully engaged.

The strand leader then quickly briefed the students on the next task, which was to continue their group work on the play they were preparing – *The Comedy of Errors*. The students spent ten minutes in their groups developing their ideas for acting scenes from the play. The staff circulated among the groups, listening to the students outlining their ideas. The students were all engaged in the task, they were all included, and there was a good deal of discussion. The groups were then brought back together and each group in turn explained their ideas and directed the acting-out of these ideas by the other students.

The students were working autonomously, directing, explaining and acting. The staff made only a few interventions, primarily to ask questions or to seek clarification from the directing students. At the end of the session, the strand leader made concluding remarks and finished with an encouraging assessment of the students' work.

Planning the strand

The drama strand had a new strand leader, although the other members of the teaching team had been involved in the previous presentations of the course. The strand leader was a freelance theatre director, and an Associate of the Royal Shakespeare Company's Learning Department. She had experience of running other summer schools before. She attended a number of induction meetings, but found the most useful was a course leaders' meeting. This meeting enabled her to focus more clearly on the planning requirements for the strand, and the key was the contribution made by her two teaching colleagues:

T've run masses of summer schools, but, you know, I think it is a very particular kind of fish. I was trying to get my head around how that would change or affect what I was going to do. And, actually, the information, the inductions I had from other people were less useful until I got to understand the way the people who had done it before. For example, my two colleagues, their perspective, obviously, was slightly different coming from their own take on it. And, actually, once I understood how the NAGTY structure works, as a whole, across the courses, it all became a lot more clear how much I'd take that into the particular dramatic medium.'

The strand leader was able to call upon the experience of one of the qualified teachers, who had previously taught on the drama strand and had wide experience at university and Further Education (FE) level. He saw his role as providing advice on specific aspects of strand planning and implementation, and noted how the roles were negotiated in the planning phase.

The strand leader felt that the particular demands of the summer school meant that planning was more demanding than for other drama summer schools she had worked upon. It required a more detailed and in-depth, more academic approach to course planning. These requirements arose from the gifted and talented nature of the students. Planning required a degree of 'just in time' planning, something that the strand leader felt she would try to reduce in future years:

Especially in the first week, it was very, very full on, because the nature of how theatre works, is that you need a lot of the kind of the real input, the kind of groundwork to be there at the beginning of the process, so that what grows out of it, you know is coming from a really solid base,

so they understand the background of the play, the influences, the kind of history that surrounded it, the kind of the styles that might be used. You know, more understanding of areas of the text that we know nothing about today, like attitudes to madness, or to other things. So I did find the first week that I was rushing home, doing loads of preparation, to come back ready the next day. I think I have a clear understanding of what I've got to do, but if actually I did it again next year, I'd think I would probably be able to be a bit more prepared about that in advance. It was more intense than I anticipated that. Obviously, the academic element to this is much more what I would give when working with a professional cast. It's much higher a level than other summer schools that I do because I'm trying to give them an all round perspective.'

Working as a teaching team

The strand required, to some extent, a different approach than that required for other strands. The strand leader felt that the team's strengths were built around the combined practitioner-educator experience:

'The benefits are that they're very experienced, both as academics and as practitioners, and I think the balance of that is really good. I don't know that there would be any advantage to having someone who was just an academic and had never had the practice. Academics tend to be very good at talking about it, writing about it, but, actually, practically doing it, sometimes, is hard, so actually the more you've got people who know how to get them into action, the better. Between the three of us we actually touch on a very broad range, across our field.'

This broad range of experience was enhanced by the addition of particular specialists, who were brought in to give workshops on various techniques. As the teacher said:

"... we had a workshop with stage fight, a clowning workshop, a voice workshop with the Royal Shakespeare Company, we talked to the set designer, so what you do for them, is you ferment the play, the big Shakespeare, into manageable elements so they feel, "Ah, I can do this, I can do this"."

He also intervened in decisions about teaching:

'There's no border that I cannot cross. We met first time, we established the fact that she is the leader from an artistic point of view, Sheila is co-directing with her, OK, and I'm the bully [laughing]. That's how we establish it. Mainly, I'm identifying strengths and weaknesses with students. I'm given the time to observe and, then, I go to the students individually, without

making too much fuss – perhaps there's a line they're struggling with, or a concept they can't understand. I work with them, just one to one, and encourage them to find an answer to the problem themselves.'

Teaching and learning

For the strand leader, the most notable aspect of the teaching and learning experience of the Drama and Theatre strand was the degree to which the students took responsibility for learning. The strand leader felt that the students were, in her experience, an unusually able group, and that, in consequence, she and the teaching team were able to benefit from their capacity to learn. Talking about the students, she characterised them as follows:

'They absolutely astonish me in their thinking and their responses. I would say, first of all, it's very mature for their age ... if you're saying what the general impression is. But they're very mature for their age in their thinking, so some are almost philosophical, if you like, in understanding of themes. I'm much more aware of having to supply more of the creative thinking, more of the kind of pushing them more, but, actually, it's been lovely to just have much more coming from them, so that you're not having to kind of dredge it out, you know.'

The fact that the strand leader found the students to be forthcoming, engaged and able allowed the teaching team to develop the theatre aspects of the course more quickly. She realised from the outset that there was more scope for teaching, and learning, with the group than with other groups that she had worked with:

'I just enjoy being with such a creative, intelligent bunch, and, therefore, not having half the group sort of slagging off the others ... Everybody is applied to the task and doing it, and keeping at it, and carrying on working, rather than picking up the tail end, and not being able to complete something because there's not enough response.'

The implications were that the teaching options were broadened, and progress was both deeper and quicker than she had anticipated. The strand leader gave one example of this, talking about her use of language with the students, and other summer school students:

'I probably have upped the sort of standard of it to more, as I say, like running a professional rehearsal, more, obviously, never entirely, but it's closer to that because it just feels like they have got enough of a grasp. They haven't necessarily got the full-on talent ... but they've got so much more of a grasp on what we're doing. I haven't worried about the language I use

so much. You know, usually when I'm working with groups of students I never like moderating my vocabulary massively, dumbing it down, but I often explain things in more than one way to make sure that everybody understands. I've done that far less this time, because, in response to hearing them talk, and the kind of vocabulary they're using, that I think, on the whole, they will understand what I'm saying.'

Distinctive features

The two strands had a number of features in common. Planning for both was detailed, extensive and had built-in a strong commitment to flexibility, in the sense of providing for student choice within a structured framework. The Robotics team, for example, accepted that planning for bright students required more preparation than usual as they are likely to want to take the learning as far as they can. This required the team to plan content for learning at different paces and allow for some students to follow interests in-depth and others to range widely across a topic or area of study. They built in time for students to establish key concepts and to log their own learning and reflections, and agreed in advance that they would be flexible in responding to the needs, abilities and interests of the students. Likewise, the Drama and Theatre team had to prepare the academic side of the course in advance and pitch it to a sufficiently high standard to meet the needs of the students. For example, a high level of preparation was required to provide the students with sufficiently academic, in-depth accounts of the background to the play, the acting styles used at the time it was written, and the historical context.

In both strands, effective team working was essential, whether the team was used to working with each other, as in Robotics, or whether it was their first time as a team as in Drama and Theatre. The key issue here was that role and responsibilities should be clear and understood, and that the team should be clear about the kind of teaching and learning that was to be valued. A particularly useful role was played by the qualified teacher who was able to observe and work with individuals, and get to know them, and their response to tasks, well.

It was important to have access to appropriate and high quality resources. The extensive, and expensive, resources used for the Robotics strand provided the basis for considerable student choice in the direction of their learning, enabling them to 'branch out' in their interests and learning. Likewise, with the Drama and Theatre strand it was essential to enrich the core teaching team by inviting specialists to give workshops on stage fighting, on clowning, on voice, and on stage design.

The overall course planning embodied motivating and competitive challenges, through specific events or outcomes, and rewards for the students. The Robotics strand was planned so that it started with two days of engaging, purposeful team activities with concrete outcomes. The first week ended with

a competition designed so that the week 'finished on a real high'. The second week was focused on project work, culminating in the final strand competition and a summer school-wide presentation day. In the Drama and Theatre strand, the students were working towards a final production of a play. Students in both strands reported that they found such events extremely demanding and exciting and therefore rewarding.

The characteristics of teaching and learning in both strands reflected similar approaches. The teams took time to get to know the students. The initial two days of team-building exercises in Robotics were an opportunity to 'stand back and watch' and to find out which students came forward as leaders, which hung back shyly - that is, to 'read' them. Students were allowed to work in teams of their own choosing during the first week but knowledge built up by the teaching team during the first week was used to ensure balanced project teams were created for the second week. They were ready to be open to learning from the students, and they used a largely open-ended teaching style made possible by planning, preparation, and working as a team. They offered activities that allowed the students to lead the direction of their own learning, yet they provided help and subject knowledge to support students' learning, and encouraged student choice about whether to pursue breadth and depth in the subject or topic area. In the Drama and Theatre strand the tutors got to know the students through direct working with them, and thereby putting themselves into a position to advise and guide student choice

We would want to stress the value position in this respect. It can be seen that the key characteristics in pedagogy on these strands were as much attitudinal as matters of technique. Obviously, particular techniques – the team building, competitions, collaborative group working – were important features of the students' learning processes. But underlying these techniques was a set of values – about giving students choice and voice, encouraging independent learning, and setting these values in a structured framework – that informed the techniques on these strands, and would inform a strand with different techniques. Pedagogical techniques reflect pedagogical values.

There emerged one major problem in the teaching and learning on the summer schools. The quality of teaching and learning, and the degree of challenge and high expectations, the opportunity to work with students of similar abilities and motivation, not to mention the resource element, all contrasted in the students' perceptions with their normal experience of teaching. They reflected on the huge gap between their learning in school and their learning in summer schools. This is to some extent understandable, but leaves the problem of how, if at all, the summer school experience can be made to connect with students' normal schooling. In an ideal world teachers would join their students on summer schools, but in a less ideal world, summer school organisers might want to ensure that material from the summer school strand was available to the schools in advance of their students' participation and that students had an obligation to feed back their learning to their teachers and peers.

General conclusions across the seven strands

Having reported in detail two cases, we think it would be useful to summarise findings across the seven strands we investigated. A number of common themes emerged from the examination of the seven. Although the strands covered a wide range of disciplines, the adults and students involved gave a broadly similar account of what they felt was good practice at the summer schools.

Planning the strands

In terms of planning, a number of salient points emerged:

- More material than will be utilised should be prepared, as there is a need
 to provide students with choice, variety and options. This is particularly
 the case if, as most of the exemplar strands did, the strand planners wish
 to stress student-led learning.
- Teaching teams should be prepared to be flexible in terms of delivery and content.
- The physical environment should be conducive to teaching and learning.
- The strand should be well resourced.

Working as a teaching team

- There should be clearly assigned roles for each member of a teaching team, based on the particular strengths and experience of individual team members.
- Continuity from one year to the next is greatly valued. This can be ensured by recruiting the same teaching team and/or building a course on previous presentations.

Teaching and learning

- The aim should be to focus on learning by the students, more than teaching by the teaching team.
- The atmosphere created in the classes was important. A relaxed, happy, relatively rule-free environment was most beneficial in terms of teaching and learning.
- In terms of content, and activity, variety was seen by all strand participants as being essential.
- The students valued interactive, hands-on learning. They also felt that discussion-based activities with their strand peers were very profitable.
- Intellectual freedom and freedom of choice were seen to be exciting and beneficial by the students.

- Students enjoyed having two-way conversations with the teaching staff, but disliked formal lectures.
- Students preferred to work in small groups on practical tasks, rather than as individuals on worksheets.
- Learning skills, and ways of thinking appropriate to the academic discipline being studied, were seen to be more important than subject content per se by both teachers and students.
- To accommodate the range of interests among the students, subject content needed to provide the potential both for in-depth study and for a broader survey across the topic area.
- Enjoyment was seen to be essential to effective learning.

For the large majority of the student interviewees from the seven strands, their experience of teaching and learning at the summer schools was an exciting, and profitable, time. It was normal for the students to have reflected on their experiences, and to offer authentic assessment of what worked for them. As one of them commented:

'Like I said, I think in normal schooling ... the class don't really have discussions, as such. You are lectured at, the teacher talks. I probably would refer to it as being taught, not being taught to, but being taught at, whereas here, you're actually having a conversation with them.'

Conclusion

Implications for theory and practice

The purpose of this chapter is to bring together the main themes that have emerged from our research. In the preceding chapters we have drawn attention to the practical implications arising from each specific case study. We thought this important in a study which has included six very different schools and two examples of out-of-school provision, even though they all had in common external ratings of them as outstanding in their provision for gifted students. Here we identify the more general ideas that arise across the cases. These are both theoretical and practical. Five issues are discussed in detail: conceptions of pedagogy; labelling a group as gifted; developing student voice; enrichment through wider schooling; teaching methods and constructivism. We then draw out some implications for teachers and school leaders.

We need to say, as anyone familiar with schools will know, that school life, and the quality of teaching and learning it encompasses, is not uniform or standardised. We often saw very exciting teaching and students who were absolutely engaged in learning. But we also saw some apparently less effective practices. The students were not universally well behaved and highly motivated (gifted students can be creative in disruptive tactics) – and some lessons were not inspiring. What follows must be tempered by the fact that we are not attempting to show a 'warts and all' portrait of the schools, which would in any case be beyond the scope of one book. We were attempting to capture, through our observation of teaching and our interviews with staff and students, those principles and practices which in their view contributed significantly to effective teaching and learning in relation to gifted students. It follows that we are presenting in this chapter a highly normative account, albeit one based on empirical investigation. We make no apology for this, since school teaching, like medicine and social work, is a value-laden profession.

Conceptions of pedagogy

Although teachers in the case study schools rarely used the term 'pedagogy', they were working with a set of assumptions about it, which we were able to draw out in interviews.

As a concept, 'pedagogy' has had a long and contested history. Robinson (2004) shows that educationalists were attempting to construct general principles of effective teaching in the early part of the twentieth century, and she illustrates how debates developed about whether teaching was an art, a craft or a science (see Robinson 2004: ch. 4). She points out that included within these general principles was an acknowledgement that effective teaching was not mechanistic rule-following, but incorporated an individual teacher's ability to tailor general principles to a specific context – what the inspectors in the early decades of the twentieth century called 'power to teach'.

One widely accepted definition by Gage (1978), which acknowledges this balance between general scientific principles and the individual's skill in applying them to particular classes or students, is that pedagogy is 'the science of the art of teaching.' This idea challenges, or extends, the standard dictionary definition of pedagogy as 'the science of teaching' (Shorter Oxford English Dictionary).

The development of the scientific dimension was boosted in the USA in the 1980s, through an influential set of empirical research studies attempting to delineate the characteristics of effective teaching (see Wittrock 1986). These identified the following characteristics of teacher effectiveness (though this is a summary outline only; for fuller details see Campbell, *et al.* 2004: ch. 4; and Reynolds and Muijs 2004):

- an orderly business-like classroom;
- objectives shared, clarified and reviewed at the end;
- transitions between activities that are brief;
- rules for behaviour established and reinforced;
- immediate, accurate and constructive correction of student misbehaviour;
- classroom climate characterised by high expectations and teacher enthusiasm;
- high proportions of whole class interactive teaching;
- immediate feedback to students;
- opportunities to practise and apply what has been taught; and
- variety in teaching strategies.

This array of findings was influential in the teacher effectiveness movement, and appears to have influenced the national strategies for teaching literacy and numeracy in England.

There were two problems identified with this approach, despite its contribution to theorising about pedagogy. One is that it treated learning objectives as unproblematic, and eschewed analysis of the educational values underlying them. However, as Pring has pointed out, if a history teacher attaches great value to the rote learning of dates, names of chronological periods and other historical facts, you would need a different assessment of her effectiveness from that required for a teacher who attached great value to learning the processes of historical enquiry (Pring 2004).

Another is that the model of effective teaching was not very good at distinguishing unusually effective teachers from average teachers and would therefore, in the words of Campbell, *et al.*, 'promote adequacy rather than excellence' (2004: 63).

A particular concern in England, in contrast to the rest of Europe and the USA, has been the apparent lack of interest in the systematic development of pedagogical principles since the 1994 Education Act, a concern expressed in Simon's papers that try to explain why there had been no principled coherent development of pedagogy (Simon 1994). Simon argued that part of the explanation lay in educational theorising in teacher training, which was disconnected from schools, part in the history of education in which Victorian public schools were principally interested in developing moral character rather than intellect, and part in the elementary school system, in which efficient mass instruction needed no pedagogical underpinning. This had led to a heavy emphasis on pragmatism at the expense of scientific principles.

A more recent analysis, drawing on and applying Simon's framework to the Primary Strategy in England (DfES 2003), defined pedagogy as 'the act of teaching together with its attendant discourse. It is what one needs to know, and the skills one needs to command, in order to make and justify the many different kinds of decisions of which teaching is constituted' (Alexander 2004).

Thus, in these analyses, pedagogy is the set of *principles* upon which *effect-ive teaching* (meaning that the teacher's objectives are realised in the students' learning) is based, upon which it is *justified*, and by which effectiveness can be *researched* and *evaluated*.

However, there has been a further problem with even these recent conceptions of pedagogy, which emerges from our case study evidence in this book. This is that they disconnect the practice of teachers in classrooms from the whole school ethos and values, and from those policies adopted in schools designed to influence teaching and learning in the classroom. This disconnection makes for a contrived restriction on what we understand as pedagogy, because the underlying assumption is that the classroom is isolated, or needs to be conceptualised as isolated, from these wider, whole school values. But no teacher is an island. What characterised the case study schools was that they had adopted whole school policies on teaching and learning. Another way of putting this point is the schools had established a formal set of publicly proclaimed values for *all* their members, not just the teachers, about teaching and learning designed to influence classroom practice. A key feature of this public commitment was that it could affect not only the teachers' practices, but also the forms of engagement that students brought to the classroom.

Therefore in the light of our evidence, we argue for a concept of pedagogy which merges three inter-related elements: scientific, evidence-based, principles; the individual teacher's power to teach; and those whole school values publicly designed to influence them.

For us pedagogy is the science of the art of teaching, together with the

whole school contextual values that underpin it. This can be criticised as overly complex (and very difficult to investigate even by qualitative methods), but we contend that effective teaching *is* an extraordinarily complex process, and should not be reduced simply to one or other of its constituent elements, whatever the methodological problems it creates.

There is one more complexity to bring into play, which arises from the fact that much learning and a considerable amount of teaching occur outside the classroom and school. Much schooling for gifted and talented students is arranged for by schools, or by parents, but delivered outside schools in summer schools, enrichment provision in specialised contexts, sports clubs, drama and music societies, and in other wider schooling contexts. Moreover, much learning is now practised online in the apparent privacy of the workstation in the bedroom or the study. Conventional definitions of pedagogy therefore need to be expanded to take account of teaching and learning in these contexts beyond the schoolroom. For this reason we included two case studies of out-of-school learning, one on learning in residential summer schools, and one of online learning. The interesting question they raise is how, if at all, learning in these kinds of contexts relates to learning in school; how far do school-based conceptions of pedagogy connect with the pedagogy of out-of-school learning. This question is both a theoretical one (i.e. are the conceptions of pedagogy in both settings congruent or dissonant?) and a practical one (i.e. is there continuity or discontinuity between teaching and learning in school and out-of-school; does the out-ofschool learning complement and extend learning in school or is it disconnected from it?) and we explore some aspects of it in the fourth section below.

Labelling a group as gifted

A theme that emerged through interviews, in every one of the school case studies, was a firmly held and forthrightly argued judgement that identifying publicly a discrete group of students as gifted and talented was problematic. These were leading-edge schools whose record in teaching gifted and talented students was exemplary. Yet all of them opposed the idea explicitly in interview, even though we did not raise it ourselves as part of our interview schedule. This commonality of view, given the wide range of school types and student intakes, is quite striking. The explanations given varied a little, and were matters of educational ideology or values.

The most forceful view was that to identify a separate group would run counter to the inclusivity of expectations held for all students in the school community; that the school held high expectations for all students, whatever their prior achievement. To hold, or to *appear* to hold, a set of differentiated expectations, or to implement a differentiated treatment, for a particular group of students would be to betray the collective values of the school.

This finding is perhaps the more striking because at the time of the interviews the English government was bringing in a policy requirement that all

secondary schools should compile a 'register' of their gifted students (though there was no requirement to make it public). Moreover, the schools' view also contrasts with an interpretation of the metaphor widely cited in gifted education circles (e.g. Stannard 2009) that 'a rising tide lifts all ships'. The interpretation placed on this, not entirely obvious, metaphor is that if you identify a discrete group of students as gifted, and effectively tailor differentiated teaching to meet their needs, the standards of other students will be raised by a sort of educational osmosis. If you raise the standards of the gifted group, you will raise standards generally. The schools in our research had turned this metaphor on its head. In their view as successful practitioners, if you aim to raise standards generally, you will raise standards achieved by gifted students.

A second view, obviously related to the first, was that the identification of a discrete group would be unfair to students excluded from it; that it would damage the esteem of students who had not been identified as gifted and talented. This egalitarian position was drawing, at least implicitly, on a version of labelling theory, which claims that labelling, when internalised, generates a self-fulfilling prophecy; labelled gifted you perform as gifted, whereas labelled as not gifted you perform appropriately. This view of labelling is unduly deterministic, for there are many examples of individuals who have overcome the barriers raised by negative labelling, as well as those who have failed to fulfil the potential of positive labelling. However, it is an argument that played strongly in the minds of those responsible for whole school policies in the case study schools, which are focused on the collective, rather than the individual, consequences of labelling.

A third view was that traditional conceptions of giftedness are unbalanced, flawed or anachronistic. This view appears to draw support from a range of influential scholarship, for example by Gardner and Sternberg in the USA, showing that intelligence, admittedly not identical to giftedness or talent, is more broadly conceived than cognitive performance (Gardner 1983, 1999; Sternberg 1985). This scholarship portrays intelligence as multi-dimensional, including kinaesthetic, affective and creative aspects, or tri-archic, including task effort and creativity as well as cognitive ability. Like these scholars, the teachers in our case study schools perceived giftedness – meaning high cognitive ability reflected in an IQ – as problematic, attaching too heavy an emphasis to the intellect.

In a similar vein, our teachers were opposed to the view that giftedness was limited to a fixed proportion of students destined to be the future leaders of the country. This view also challenges some proponents of gifted education (e.g. Eyre 2004) who propose that a limited proportion of students identified as gifted are predetermined to take leadership in society. The views of our teachers, in contrast, appeared to reflect the critiques of Borland in the USA and White in the UK, that this view of a fixed and measurable intelligence, restricted to a small proportion of the population, owes more to theories of

eugenics and puritanical pre-destination than it does to educational theory. In the senses identified above, the practitioners in these schools hold more psychologically modern, and more morally progressive, views of giftedness than some advocates of gifted education.

Developing student voice

It has become fashionable to espouse a commitment to student voice, but as we argued in Chapter 2 researchers in the field have pointed to widespread tokenism in this area; students are consulted only on relatively trivial matters, such as the time of school lunch breaks, or in bad faith, consulted in order to secure support for an issue on which the school leadership has already made its decision. In the case study schools, by contrast, we found a commitment to substantive and authentic embedding of student voice in the life of the school. In nearly all the schools a main focus for student voice was teaching and learning.

We showed perhaps an extreme example of this in Chapter 6, where a student at Brook Street College negotiated that she could take a whole A-level course through independent study, rather than take the taught programme offered by the school.

A particularly clear example was provided by the case of Padbury School, discussed in Chapter 7, which had developed research by staff and students into student voice. The intention was, in the words of the headteacher, 'to tap into a thousand bright minds who may well have some inspirational ideas about what we can be offering ... and how the learning process happens for them.' The students were involved in researching learning styles, and regularly fed back to teachers on teaching effectiveness. As one student said, 'the problem some teachers find coming here is that we are all intelligent young women and we will stand up for what we think.'

Students were also involved in decisions about staff appointments. This kind of activity was in addition to a wide range of more conventional matters such as uniforms, canteen rotas, etc. It was in this school that a student questioned the use of the term 'student voice' because it implied a separation between students and the teachers, which she thought was inaccurate. We think this is evidence not just of a critical thinking by the student, but also of the student's voice being genuinely part of the school life.

In these schools, then, the practice of developing authentic student voice led to action and fed into decision-making. Student voice implied student choice.

Enrichment through wider schooling

Although the case study schools were following the national policy of mainstreaming gifted education and were all state-funded schools, they adopted widespread enrichment practices by providing, or arranging for, learning beyond the normal school curriculum. This provision typically involved: residential and non-residential courses off the school site; clubs and specialist interest groups, such as music, drama, chess; links with universities, the professions and the local community; and visiting speakers. They also tended to provide opportunities for active citizenship through students working with primary schools, community groups and charities.

One of the clearest examples of this was in the case of Beddington Grove School, where activities included mentoring of younger pupils, lunch-hour tutoring, community service, a bridge club, a drug education project, national competitions such as the Maths Olympiad and the British Biology Olympiad, sports, music and arts clubs, scouts and other groups, media training, a science club and other activities (see Chapter 8).

We might classify these wide-ranging activities as follows: activities designed to extend the subjects of the normal curriculum, e.g. tutoring in mathematics; activities designed to develop or extend interests and hobbies of the students, e.g. a chess club; activities designed to engage students as citizens contributing to the improvement of society, e.g. making a wind turbine for an African village. This last category is quite important in the context of English education compared to policies in non-Western societies. National policy in England has been concentrated almost entirely on the cognitive development of the individual student. In other systems, for example in Latin America, India and Singapore, giftedness is seen as carrying social obligations, with expectations that the gifted student will contribute to the betterment of society. In England by contrast, giftedness is seen as conferring privileges on the individual. In the case study schools, the enrichment activities in the third category above were challenging to some extent the narrow English conception of giftedness, by extending it into a more social orientation.

When we examined the student experience of wider schooling in the summer schools and the online reading group, a major finding jumped out at us: the unintended consequence was to promote a devaluing of the school learning, with students comparing the learning processes at school unfavourably with those outside school settings. Of course, the students were not comparing like with like as far as the learning context was concerned, and, in any case, were not from the case study schools. Nevertheless, it raises the general question of how far the experience of enrichment can connect with the experience of normal schooling. In the case study schools there were positive and implemented policies linking wider schooling with school learning. And it could be argued that some learning out of school that has no connection with learning in schools would be beneficial because it was different. Discontinuity has its advantages. Nonetheless, much wider schooling provision is not planned for in advance by schools and not followed up afterwards, according to evaluation research conducted into the summer schools (Cullen, et al. 2005). Where this happens, it is highly likely that the unfavourable comparison referred to above will be reinforced in the students' minds.

Teaching methods and constructivism

We have illustrated in the case studies a variety of teaching and learning sessions and captured the views of students, who had been identified as gifted and talented, about what helped them learn. The conclusions we draw are not intended to be a comprehensive guide to effective teaching of gifted and talented students, since we are quite properly constrained by the nature of our evidence and samples. And it is certainly not offered as a so-called toolkit of tips and techniques for teachers. As many of our student interviews suggest, there is no one way of teaching and learning that suits everyone identified as gifted and talented. However, some common ideas about effective teaching and learning emerged across the schools and the students.

Expertise, passion and the co-construction of understanding

Teachers needed high levels of subject expertise and what several students called 'passion' for their subject. We consider this to be primarily a moral matter; teachers had to have a strong belief in the value of their subject for their students. However, it was also a practical matter of pedagogy. Without subject expertise and passion a teacher cannot respond spontaneously to the difficult questions raised in class by students, and cannot scaffold students' thinking. Although all the teachers we observed had carefully structured lessons, they also had embedded in them the antithesis of inflexible planning – a readiness and knowledge to respond to worthwhile and interesting ideas that they had not foreseen. Perhaps the best examples are to be found in Chapter 6, in the case of Brook Street College, where the evidence of two teaching sessions is provided in some detail. The teachers saw themselves as co-constructing knowledge - though not using those terms - with their students, i.e. as working with them to help the students create understandings for themselves. This was the idea expressed well by two students in the group interview which we quoted in Chapter 6. The first student commented:

'I do love my subject – I know it sounds geeky, but I do. And you find here that the teachers are like that. They are really passionate about their subject. The college has such a good reputation that you are pleased to have got in here and they don't force the support on you, they offer it and you have to take the responsibility for taking it on ... They instil a passion for the subject, they have a personal interest in it and with that comes the motivation to learn.'

And the second student said:

'I agree and it's important that the expectations are there, important that

they expect you to be as passionate as them, and it has helped me that they expect me to be like them. For me teachers' knowledge of their subject — I'm doing science — is absolutely important. There's nothing so demotivating if the teacher says, "I don't know", when you ask them for an answer, and there's nothing so motivating as Dr ... who's like a genius, he's a big national expert I think, and it just shows in the way he teaches the way he takes you along with him and makes you want to be as passionate about it as he obviously is ... a teacher's knowledge and passion for the subject are linked and they make us motivated, or self-motivated ...'

This is, in everyday language, what constructivism attempts to provide – the opportunity for teacher and learner to construct knowledge together, collectively. In this kind of teaching it takes two (at least) to tango.

Problem-posing for critical thinking and risk-taking

The students responded particularly well to sessions in which they were set problems, in a relatively open-ended mode, and were expected to think through possible solutions to them that they could justify. The practice in these schools was not to set only problems that had a solution that the teacher already knew. Of course, for some tasks there was a right and a wrong answer, but the problem-solving tasks that challenged the students were those where there were several defensible solutions, or even occasionally where the intellectual process of investigating the problem was more interesting than the arriving at a solution.

We have illustrated problem-solving of this kind in several of the classroom vignettes in the case studies. A good example is in Chapter 8 where a lesson in biology at Beddington Grove School is outlined. Students were set the task of exploring variation in populations of daisies. The teacher stressed that there were no right or wrong answers, but she required answers that could be logically justified. The observer noted the creativity, energy and humour that this approach engendered in the students.

In the very different setting of the Robotics strand in the summer school that provides part of Chapter 10, it is clear that the students responded well to the challenge of designing their robots and making them work effectively. Again, there was no one solution; only solutions that worked for the objective in hand.

The further point to make is that problem-solving of this kind needed a school and classroom culture which encouraged risk-taking by students; a culture where it was *interesting*, not reprehensible, to be wrong, or to have pointed out by teachers or peers that an argument or solution did not work. This was partly a pedagogical position that the process was more important than the product. However, it also attempted to deal with the fear of failure that some gifted students experience in risk-aversive classrooms, and which leads to their

not engaging fully in task performance in case they get something wrong. When this becomes habitual, it is sometimes called, following Carol Dweck's work in the USA, 'learned helplessness', and adversely affects progress, so the development of risk-taking classrooms is particularly important for these students (Dweck 1975; Dweck and Leggett 1988).

As we showed in the case of Beddington Grove School, in some schools this approach is articulated quite deliberately. If teachers consistently set high challenges in the classroom, students will sometimes get wrong answers. Our observer noted that, across the school, the teachers handled such occasions by commending students for thinking logically about a problem and venturing an answer, even where it turned out not to be correct or feasible. This ethos in the school was judged to help explain why students felt comfortable with being constantly stretched and challenged (see Chapter 8).

We quoted one of the students as summing up why this approach worked: 'I think it's more involving here [in the robotics summer school] because they let you work things out for yourself, instead of just saying, "There's a worksheet, work your way through it".'

Assessment for Learning

Assessment for Learning (AfL) refers to the assessing of students' work and giving them feedback formatively, in ways that help them understand their own strengths and weaknesses in the learning process. It was developed in this country by Black and William at King's College London, and has been judged as being one of the most effective projects in education, contributing to educational improvement in practice when implemented by teachers (Black and William 1998). The schools were familiar with the main ideas of AfL and all thought it particularly appropriate for gifted and talented students, because they had high levels of self-awareness and reflection generally.

The main forms AfL took in the schools were: regular feedback on students' assignments, including (in two schools) formative comments without a mark or grade; questioning by teachers in class; and regular one-to-one tutorials. These different forms were sometimes focused on what went well or badly in an assignment or classroom task, but were also deliberately focused on the development of meta-cognitive awareness in students. This was particularly true in those schools using one-to-one tutorial systems.

AfL classroom practice is perhaps most clearly illustrated in Chapter 8, where a staff development programme gave examples from across different subjects, emphasising the significance of student self-assessment and drawing attention to a school-based research project investigating student perceptions of criteria for effective learning.

The main issue in this approach is what the purpose of assessment is seen to be, and whether the school's policy and practice consistently promote it as serving a formative purpose rather than its having primarily a grading function.

Adopted as the former, it led to significant improvement in students' self-regulating of their learning and in increased independence in learning.

Great expectations and high motivation

In the schools and classrooms there was enormous significance attached to setting appropriately high expectations for students and for students being motivated to reach them. Expectations in all schools were about academic progress and social and moral development, including discipline and behaviour. The schools went to great lengths publicly to proclaim these expectations: to parents and students upon admission; in written form around the corridors and classrooms; in school assemblies; and, where necessary, by admonition of those judged not to be meeting them. In several of the schools, the expectations took the form of a contract, formal or informal, in which expectations for students were set alongside the expectations the students could hold for the teachers and other school staff.

However, formal statements, important though they were, were less salient than the daily relationships between teachers and students, where the expectations were made palpable. The importance of this relationship of expectations is clearly illustrated in the case study of St Etheldreda's school in Chapter 4. We quoted a student saying:

'Although Year 11 is stressful, because of all the exam pressures, the teachers keep you going. They're continually reminding you to stay on track. Revision classes are offered every Saturday, so the teachers actively help us take the pressure.'

Likewise, in the mathematics lesson outlined, our observer noted questions probing for understanding which sought explanations and clarification from the students themselves: 'There was a strong sense of personal relationship between the teacher (and the class), who clearly knew the students well and was constantly focusing them and maintaining a high level of challenge.'

Students in all schools claimed in interview that the atmosphere of high expectations led to high motivation in themselves. As one in Brook Street College said:

'it's important the expectations are there, important that they [the teachers] expect you to be as passionate as them, and it has helped me that that they expect me to be like them ... you need a lot of discipline for this to work. The teachers aren't looking over your shoulder all the time saying do this or do that, but they are expecting you to like to do your best, and that in the end means that you put pressure on yourself.'

We are stressing the importance of the teacher-student relationship in

embodying high expectations since that is what the students and teachers stressed. As the headteacher of Padbury School said in Chapter 7, it was not a matter of ticking boxes. The important thing in her view was that it should get into what she called the 'soul of the school'.

One way in which this high expectation relationship showed itself was in the availability of teachers to students outside lesson time, a characteristic frequently commented on by students. This sometimes took the form of e-mail contact, but nearly always was a matter of face-to-face personal contact, either informally or through planned tutoring time. This attitude of teachers working 'beyond the bond' might go against the grain of old-fashioned teacher unionism, but in our view was a major contribution to the ethos of high expectations in the school.

Differentiation

In all the schools, some form of differentiation was organised, but there was more variation among the schools in this respect than in others. At King's Spafford, the whole curriculum was differentiated into four levels, with students effectively responsible for matching their learning tasks to their perceived needs. This innovative approach was distinctive, but in other schools differentiation was more conventional. At St Etheldreda's, students were assigned to groups set by ability or attainment. At Brook Street College, Advanced Extension Awards classes were provided for students who were particularly high achievers, although they were open to anyone. At Stanwell, there was ability-grouping for some particular subjects, such as mathematics. In the two selective grammar schools, differentiation came through the tasks set in classrooms and through student self-assessment.

The point we would want to make is that differentiating learning tasks, irrespective of the forms it took, played a major role in these schools and they had no ideological problem with the idea of differentiation, even though, as we have shown earlier, they were uncomfortable with identifying a discrete group of gifted students. On the contrary, the commitment to differentiation was part of the way the schools managed to meet the varied needs of their students.

Conclusions: implications for teaching

There is considerable debate about whether teaching methods should be generic or differentiated – whether particular groups of students respond better to methods differentiated by factors such as ethnicity, ability, social class and gender. There are arguments in favour of adjusting teaching methods to be responsive to students' culture, ability, class or gender. Indeed this last area is explored in the evaluation of the online reading group in Chapter 9, where gender differentiation in students' response and engagement with the group

was examined, and the implications for teaching were discussed. This is not the place for a full discussion of this issue which is addressed elsewhere (Campbell, *et al.* 2004).

However, we were interested in whether the teaching methods, or to be more precise, the pedagogy, adopted in the schools for gifted students was distinctive, or whether it was very similar to that adopted for all students. Put simply, were the teaching methods that were effective with gifted students effective with all students, or were there teaching approaches that were distinctively appropriate for gifted students? Our judgement is that, for the most part, the methods used, and the principles underlying them, were what most researchers and most practitioners would judge as good teaching methods for any student. If we look at the list of ideas above, there is little that is applicable to gifted students and not to others.

However, some practices seemed particularly appropriate for gifted students, even though they might also be effective with others. They are as follows:

- Teachers can set a fast learning pace, devoting little time to reinforcement in lessons.
- Teachers can assume high levels of motivation and good behaviour in students.
- Teachers can encourage high levels of risk-taking behaviour in the learning of students.
- Teachers can deploy very high levels of subject expertise and passion for their subject.
- Teachers can engage in co-constructing knowledge with their students rather than, or in addition to, transmitting it.
- Teachers can convey high expectations through their relationships with students in and out of classrooms.
- Teachers can encourage student self-assessment and meta-cognition for independent learning.
- Teachers can set open-ended problem-solving tasks requiring higher-order thinking and creative solutions.
- Teachers can learn about their teaching effectiveness from the authentic exercise of student voice.
- Teachers can direct students to the opportunities available out of school.

Finally, we return to the issue of whole school values. Teachers could do all the above, but they would not be effective unless they were also working in a school where the value system reinforced their classroom practice. When we argued above that in the light of our evidence we should re-conceptualise pedagogy so as to include the ethos and values of the organisation in which teaching occurred, it was not only a theoretical consideration. It had practical implications. In the case study schools, whole school policies affected classroom practice and classroom practice fed into whole school policies. This interactive

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process was the basis whereby the schools and teachers enabled their students, including those identified as gifted and talented, to realise their potential as learners and as young citizens.

Bibliography

- Adonis, A. and Pollard, S. (1998) A Class Act: The Myth of Britain's Classless Society, London: Penguin Books.
- Alexander, R. (2000) Culture and Pedagogy, Oxford: Blackwell.
- Alexander, R. (2004) Towards Dialogic Teaching: Rethinking Classroom Talk, York: Dialogus.
- Bailey, R., Pearce, G., Winstanley, C., Sutherland, M., Smith, C., Stack, N. and Dickenson, M. (2008) 'A systematic review of interventions aimed at improving the educational achievement of pupils identified as gifted and talented', in *Research Evidence in Education Library*, London: EPPI-Centre.
- Ball, S., Bowe, R. and Gewirtz, S. (1996) 'School choice, social class and distinction: The realisation of social advantage in education', *Journal of Education Policy*, 11(1): 89–112.
- Bernstein, B. (1973) Class, Codes and Control: Towards a Theory of Educational Transmissions, London: Routledge and Kegan Paul.
- Black, P. and William D. (1998) 'Inside the black box: raising standards through classroom assessment', *Phi Delta Kappa*, 79 (10): 139–150.
- Bourdieu, P. (1998) The State Nobility: Elite Schools in the Field of Power, Cambridge: Polity Press.
- Borland, J. H. (2005) 'Gifted education without gifted children: The case for no conception of giftedness', in R. J. Sternberg and J. E. Davidson (eds) *Conceptions of Giftedness*, 2nd edn, New York: Cambridge University Press.
- Campbell, R. J. (2004) 'Review of research into middle leadership', paper presented at the National College for School Leadership, Nottingham.
- Campbell, R. J. (2007) 'The systemic impact of NAGTY: the evidence', internal note for the National Steering Committee at the National Academy for Gifted and Talented Youth, University of Warwick, April.
- Campbell, R. J., Eyre, D., Muijs, R. D., Neelands, J. G. A. and Robinson, W. (2004) The English Model of Gifted and Talented Education: Policy, Context and Challenges, Warwick: National Academy for Gifted and Talented Youth, University of Warwick.
- Campbell, R. J., Kyriakides, L., Muijs, D. and Robinson, W. (2004) Assessing Teacher Effectiveness: Developing a Differentiated Model, London: RoutledgeFalmer.
- Campbell, R. J., Muijs, R. D., Neelands, J. G. A., Robinson, W., Eyre, D. and Hewston, R. (2007a) 'The social origins of students identified as gifted and talented in England: a geodemographic analysis', Oxford Review of Education, 33 (1): 103–120.
- Campbell, R. J., Robinson, W., Neelands, J., Hewston, R. and Mazzoli, L. (2007b) 'Personalised learning: ambiguities in theory and practice', *British Journal of Educational Studies*, 55 (2): 135–154.

- Crook S., Power, S. and Whitty, G. (1999) The Grammar School Question: Review of Research on Comprehensive and Selective Education, London: Institute of Education.
- Cropley, A. J. (1995) 'Actualising Creative Intelligence', in J. Freeman (ed.) Actualising Talent, London: Cassell.
- Cullen, S., Cullen, M. A. and Lindsay, G. (2005) National Academy for Gifted and Talented Youth (NAGTY) Summer Schools 2005: Seven Case Study Strands, Warwick: Centre for Educational Development Appraisal and Research (CEDAR), University of Warwick.
- Davis, G. A. and Rimm, S. B. (1998) Education of the Gifted and Talented, 4th edn, Boston, MA: Allyn and Bacon.
- Department for Education and Science (DES) (1978) Primary Education in England: An HMI Survey, London: DES.
- Department for Education and Employment (DfEE) (2001) Schools: Building on Success, London: The Stationery Office.
- Department for Education and Skills (DfES) (2002) Excellence in Cities, Schools Extending Excellence: Annual Report 2000-01, Nottingham: DfES.
- Department for Education and Skills (DfES) (2003) Excellence and Enjoyment: A Strategy for Primary Schools, London: DfES.
- Department for Education and Skills (DfES) (2004) A National Conversation about Personalised Learning, London: DfES.
- Department for Education and Skills (DfES) (2005) Higher Standards, Better Schools for All: More Choice for Parents and Pupils, London: HMSO.
- Department for Children, Schools and Families (DCSF) The Children's Plan: Building Brighter Futures, London: HMSO.
- Department for Children, Schools and Families (DCSF) (2009) Your Child, Your Schools, Our Future: Building a 21st Century Schools System, London: The Stationery Office.
- Douglas, J. W. B. (1964) The Home and School, London: MacGibbon and Kee.
- Dweck, C. (1975) 'The role of expectations and attributions in the alleviation of learned helplessness', Journal of Personality and Social Psychology, 31: 674–685.
- Dweck, C. and Leggett, E. L. (1988) 'A social-cognitive approach to motivation and personality', Psychological Review, 95: 256-273.
- Earle, L., Watson, N., Levin, B., Leithwood, K., Fullan, M. and Torrance, N. (2003) Watching and Learning 3: OISE/UT Evaluation of England's National Literacy and Numeracy Strategies, Third and Final Report, Ontario: Ontario Institute for Studies in Education, University of Toronto.
- Edwards, T., Fitz, J. and Whitty, G. (1989) The State and Private Education: An Evaluation of the Assisted Places Scheme, Basingstoke: Falmer.
- Eyre, D. (1997) Able Children in Ordinary Schools, London: David Fulton.
- Eyre, D. (2004) 'Gifted education: The English model, working paper', Warwick: National Academy for Gifted and Talented Youth, University of Warwick.
- Floud, J. and Halsey, A. H. (1957) 'Intelligence tests, social class and selection for secondary schools, British Journal of Sociology, VIII: 33–39.
- Ford, J. (1969) Social Class and the Comprehensive School, London: Routledge and Kegan Paul.
- Fox, I. (1984) 'The demand for public school education: A crisis of confidence in comprehensive schooling', in G. Walford (ed.) British Public Schools: Policy and Practice, Lewes: Falmer
- Freeman, J. (1995) 'Review of current thinking on the development of talent', in J. Freeman (ed.) Actualising Talent, London: Cassell.
- Freeman, J. (1998) Educating the Very Able: Current International Research, London: The Stationery Office.

- Gage, N. L. (1978) The Scientific Basis of the Art of Teaching, New York: Teachers College Press.
- Gagné, F. (1994) 'Gifts and talents: The value of peer nominations', keynote address, 4th International Conference of the European Council for High Ability, October, University of Nijmegen, The Netherlands.
- Gardner, H. (1983) Frames of Mind: The Theory of Multiple Intelligences, New York: Basic Books.
 Gardner, H. (1999) Intelligence Reframed: Multiple Intelligences for the 21st Century, New York: Basic Books.
- Guilford, J. P. (1950) 'Creativity', American Psychologist, 5: 444-454.
- Halsey, A. H., Heath, A. and Ridge, J. (1980) Origins and Destinations: Family Class and Education in Modern Britain, Oxford: Clarendon Press.
- Harris, A. and Ranson, S. (2005) 'The contradictions of educational policy: disadvantage and achievement', *British Educational Research Journal*, 31 (5): 571–587.
- Hayward, G., Hodgson, A., Johnson, J., Keep, E., Oancea, A., Pring, R., Spours, K. and Wright, S. (2004) The Nuffield Review of 14–19 Education and Training: Annual Report 2003–4, Oxford: University of Oxford Department of Educational Studies.
- Her Majesty's Inspectorate (HMI) (1992) The Education of Very Able Children in Maintained Schools: A Review by HM Inspectorate, London: HMSO.
- Hewston, R., Campbell, R. J., Eyre, D., Muijs, D., Neelands, J. and Robinson, W. (2005) First Annual Survey of the Workloads and Support Needs of Gifted and Talented Coordinators in Secondary Schools in England, Occasional Paper 4, Warwick: National Academy for Gifted and Talented Youth, University of Warwick.
- House of Commons (1999) *Highly Able Children*, Education and Employment Committee, Third Report, London: HMSO.
- Keys, W., Mason, K. and Kendall, L. (2002) Supporting Students Applying to Higher Education, report for the Sutton Trust. Online. Available at http://www.suttontrust.com/annualreports. asp (accessed 11 August 2009).
- Krechevsky, M. and Gardner, H. (1990) 'The emergence and nurture of multiple intelligence', in M. Howe (ed.) Encouraging the Development of Exceptional Abilities and Talent, Leicester: British Psychological Society.
- Lawton, D. (1975) Class, Culture and the Curriculum, London: Routledge and Kegan Paul.
- Leadbeater, C. (2004) Personalisation through Participation, London: Demos.
- Macaro, E. and Wingate, U. (2004) 'From sixth form to university: motivation and transition among high achieving state-school language students, Oxford Review of Education, 30 (4): 465–488.
- McCrum, N. G., Brundin, C. L. and Halsey, A. H. (2003) 'Access: a better way', Oxford Magazine, Fourth Week, Trinity Term: 1–5.
- Monks, F. J. and Pfluger, R. (2005) Gifted Education in 21 European Countries: Inventory and Perspective, Nijmegen: University of Nijmegen.
- Muijs, D. and Reynolds, D. (2001) Effective Teaching: Evidence and Practice, London: Sage.
- National Academy for Gifted and Talented Youth (2004) Ambassador Schools Report, Warwick: National Academy for Gifted and Talented Youth, University of Warwick.
- National College for School Leadership (NCSL) (2004) Personalised Learning, special LDR supplement, Nottingham: NCSL.
- National Strategies (2008) *National Strategies Gifted and Talented Newsletter*. Online. Available at: http://nationalstrategies.standards.dcsf.gov.uk/node/152364 (accessed 23 October 2009).
- Neelands, J. G. A., Band, S., Freakley, V. and Lindsay, G. (2006) *Hidden Talents: A Review of State Supported Provision and Policy for Talented Pupils in England*, Occasional Paper 2, Warwick: National Academy for Gifted and Talented Youth, University of Warwick.

- Office for Standards in Education (OFSTED) (2003) Standards and Quality 2002/03, annual report of Her Majesty's Chief Inspector of Schools, OFSTED, London: The Stationery Office.
- Plowden Report (1967) Children and Their Primary Schools, London: The Stationery Office.
- Pollard, A. and James, M. (2004) Personalised Learning: a TLRP Commentary, Swindon: Economic and Social Research Council (ESRC).
- Power, S., Whitty, G., Edwards, T. and Wigfall, V. (2003) *Education and the Middle Class*, Buckingham: Open University Press.
- Pring, R. (2004) Philosophy of Educational Research, 2nd edn, London: Continuum.
- Renzulli, J. S. (1977) The Enrichment Triad Model: A Guide for Developing Defensible Programs for the Gifted and Talented, Mansfield Center, CN: Creative Learning Press.
- Reynolds, D. and Muijs, R. D. (2004) The Gatsby Teacher Effectiveness Study, London: RoutledgeFalmer.
- Robinson, W. (2004) Power to Teach: Learning through Practice, London: RoutledgeFalmer.
- Robinson, W., Campbell, R. J. and Mazzoli, L. (2006) *Developing Expertise: School-based Case Studies*, Occasional Paper 12, Warwick: National Academy for Gifted and Talented Youth, University of Warwick.
- Ryan, W. (1971) Blaming the Victim, New York: Vintage Books.
- Salmon, G. (2003) The Key to Teaching and Learning Online, 2nd edn, London: RoutledgeFalmer.
- Schagen, I. and Schagen, S. (2001) 'The impact of selection on pupil performance', report to the NFER Council of Members Meeting, October, Slough: National Foundation for Educational Research (NFER).
- Simon, B. (1994) 'Some problems of pedagogy revisited', in *The State and Education Change: Essays in the History of Education and Pedagogy*, London: Lawrence and Wishart.
- Stannard, J. (2009) 'Keynote speech to London Regional G&T Conference', 11 June. Online. Available at: http://www.standards.dcsf.gov.uk/giftedandtalented/ (accessed 10 August 2009).
- Sternberg, R. (1985) Beyond IQ: A Triarchic Theory of Human Intelligence, Cambridge University Press.
- Urban, K. (1990) 'Recent trends in creativity research', European Journal of High Ability, 1: 99-113.
- White, J. (2006) Education, Intelligence and Destiny: The Ideological Roots of Intelligence Testing, Abingdon: Routledge.
- White, K., Fletcher-Campbell, F. and Ridley, K. (2003) What Works for Gifted and Talented Pupils: A Review of Recent Research, Slough: National Foundation for Educational Research (NFER).
- Wittrock, M. C. (ed.) (1986) *Handbook of Research on Teaching*, 3rd edn, New York: Macmillan Publishing Co.

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