Developing a Gifted and Talented Strategy: Lessons from the UK experience

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Dr Robin Attfield is a principal consultant working especially on teaching and learning, and educational leadership and management. An experienced writer and researcher, he works both in the UK and internationally, and has spent much time on projects in the Middle East, particularly in the Gulf.

Prior to joining CfBT Education Trust he enjoyed two successful headships and subsequently worked as senior school adviser and school improvement officer in local authorities, where he led on personalisation including provision for the gifted and talented. Robin also spent four years as Assistant Director at the National College for School Leadership; he continues to carry out independent work for the College, as well as for the Southern Educational Leadership Trust.

Introduction

> *Many schools tell parents that they aim to 'realise the potential of all pupils'.*

Many schools tell parents that they aim to 'realise the potential of all pupils'. What does this mean in practical terms for gifted pupils? How should we organise our finite resources at school level and, above all, what should we do in individual classrooms on a daily basis to meet the needs of these young people? This booklet seeks to answer these questions, drawing upon two main sources:

- Research into issues relating to giftedness

- The practical experience of schools in the UK, particularly in England, over the last decade.

A consideration of these sources endorses the view that there are key steps that schools need to think through in order to meet the needs of gifted and talented learners:

1. Implementing effective procedures for **identification** based on clear **definitions** and an understanding of the **characteristics** of giftedness and talent.

2. Agreeing a consistent **whole-school approach** in the form of a school policy using the agreed definitions and characteristics.

3. Assigning responsibility to staff, including the appointment of a **single designated coordinator** for gifted and talented learners.

4. Providing for giftedness and talent within the mainstream classroom (**extension**).

   Providing for giftedness and talent through additional experiences (**enrichment**).

5. Coping with stereotypes and **troubleshooting**.

The booklet is organised around these steps. For each step, advice is provided based on a mix of academic research and practical experience from across the UK, and particularly from England.

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Step 1: Identification

> *…gifted and talented pupils are those who have one or more abilities developed to a level significantly ahead of their year group.*

The first step towards meeting the needs of individual students should be to establish the school's position on the definition of giftedness and talent, and the second, linked step, is to reach agreement about how to identify pupils who are gifted and talented according to the school's definition.

1.1 The distinction between giftedness and talent

This booklet accepts the distinction between giftedness and talent. In general terms, gifted and talented pupils are those who have one or more abilities developed to a level significantly ahead of their year group (or with the potential to develop these abilities). The potential cohort includes those with:

- the gift of potential for high academic achievement, for example in science, mathematics or languages

- marked talent in art, or the performing arts including music, dance and drama and sports.

Not everyone agrees with this distinction between giftedness and talent. Gardner (2000), for example, sees no good reason for separation into two quite distinct areas. Some have suggested that such division arises from a long-standing view that the academic subjects are more important than the arts and that this separation is really about an unhelpful separation between academic and vocational education.

1.2 Giving enough attention to talent?

While recognising that the distinction is contested, it can also be useful. It reminds us to give due attention to 'non-academic' aptitude and the complexity of assessing talent. Within the field of talent, there has perhaps been a specific emphasis on performance. One research study (Neelands *et al* 2005) investigated specific issues about provision in the performing arts and sport.

They suggest that identification too often tends to be performance-based and ignores the multidimensional aspects of quality, such as teamwork, leadership, task commitment and academic skills.

There is generally less research related specifically to talent but there is in the literature recognition that schools have generally been far less adept at identifying talent than giftedness. Ofsted (2005) indicated, perhaps unsurprisingly, that in terms of talent rather than giftedness, it has been much more difficult for schools to identify potential rather than realised talent. For this reason, it is important to include parents and pupils themselves in such assessment.

The British researcher Joan Freeman suggested certain typical characteristics of learners who may be of high ability, as shown in Table 1.

Identification in the Early Years is particularly challenging. In this context Freeman (1998) has recently stressed four important dimensions in assessment of talent and giftedness with very young children (see Table 2).

The American psychologist Renzulli (1986) has developed a triad of overlapping traits that has become known as the 'three-ring concept of giftedness' (see Figure 1). After an extensive analysis of research studies of gifted individuals, Renzulli concluded that giftedness involves the interaction of three sets of characteristics: above-average intellectual ability; creativity; and task commitment. This interaction may result in giftedness in areas such as mathematics, philosophy, religion or visual arts, or relate to one particular aspect of performance, such as directing a play or cartography.

Renzulli's three-ring concept of giftedness has helped educators to look for more than intellectual ability in identifying pupils with potential. We now recognise the importance of creativity. When these two factors are combined with task commitment, there is potential for giftedness.

TABLE 1: Characteristics of High Ability Learners (Freeman, 1998)	
He or she may:	
• Be a good reader	• Have a good memory that he/she can access easily
• Be very articulate or verbally fluent for his/her age	• Be artistic
• Give quick verbal responses (which can be cheeky)	• Be musical
• Have a wide general knowledge	• Excel at sport
• Learn quickly	• Have strong views and opinions
• Be interested in topics which one might associate with an older child	• Be very sensitive and aware
• Communicate well with adults – often better than with his/her peer group	• Focus on his/her own interests rather than on what is being taught
• Have a range of interests, some of which are almost obsessions	• Be socially adept
• Show unusual and original responses to problem-solving activities	• Appear arrogant or socially inept
• Prefer verbal to written activities	• Be easily bored by what he/she perceives as routine tasks
• Be logical	• Show a strong sense of purpose or leadership
• Be self-taught in his/her own interest areas	• Not necessarily appear to be well behaved or well liked by others.
• Have an ability to work things out in his/her head very quickly	

TABLE 2: Freeman's View of Indicators of High Aptitude in the Early Years
1. Lively minds
The most noticeable feature of gifted children is the liveliness of their minds. This comes across in many ways, especially in their delight with words. Even as toddlers they're usually very quick to spot tiny differences and catch on to unusual associations between ideas.
2. Awareness
Gifted little ones use their radar brains to seek and absorb information, sometimes catching your meaning before you've reached the end of your sentence. They copy other people's behaviour and learn fast from the experience. Sometimes they seem quite grown up, although genuine maturity will come later.
3. Ability to learn
A keen appetite for learning, making one wonder where clever children get all their knowledge from: they seem to absorb it from everywhere – television, people's conversations, the air!
4. Independence
The clever toddler takes pride in what they can do. Even in their first few days at proper school, they're usually outstandingly independent and competent, though some get a shock when they find all the others working at a very much lower level. Some develop special interests even at nursery school, though these might change. By the time they reach primary school, they may be really beginning to know their way around a subject. (See also: **www.joanfreeman.com**.)

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FIGURE 1: Renzulli's Rings

What makes Giftedness?

Above average intelligence

Task commitment

Creativity

Treffinger (1986) has built on the work of Renzulli and identified in some detail the characteristics associated with each of the three rings, as shown in Table 3.

1.3 Identification of gifted and talented learners

Teachernet, the UK government website for teachers, recommends that 'identification must be an ongoing process' because 'different abilities emerge at different ages and in different circumstances'. There is a consensus among researchers that identification of gifted and talented pupils must be made using multiple sources and strategies including both quantitative and qualitative data.

There are relative advantages and disadvantages of different methods of identification and schools need to consider these carefully before determining their own individual and agreed approach to the identification of pupils who are gifted and talented. Table 4 indicates the range of multiple sources for identification and some of the advantages and shortfalls of particular methods. By combining several sources it is possible to minimise the disadvantages of particular methods.

TABLE 3: Characteristics of Giftedness (Treffinger, 1986)		
Above average intelligence	**Creativity**	**Task commitment**
Advanced vocabulary	Questioning – very curious about many topics	Sets own goals, standards
Good memory	Has many ideas (fluent)	Intense involvement in preferred problems and tasks
Learns very quickly and easily	Sees things in varied ways (flexible)	Enthusiastic about interests and activities
Large fund of information	Offers unique or unusual ideas (original)	Needs little external motivation when pursuing tasks
Generalises skilfully	Adds details which make ideas more interesting (elaborates)	Prefers to concentrate on own interests and projects
Comprehends new ideas easily	Transforms or combines ideas	High level of energy
Makes abstractions easily	Sees implications or consequences easily	Perseveres – does not give up easily when working
Perceives similarities, differences, relationships	Risk-taker – speculates	Completes, shares products
Makes judgments and decisions	Feels free to disagree	Eager for new projects and challenges
	Finds subtle humour, paradox or discrepancies	Assumes responsibility

TABLE 4: Methods of Identification		
Method	**Advantage**	**Disadvantage**
Using national tests and examinations	• Moderated by external objective body • Allows comparison beyond a school • Can show progress made	• Only gives performance on a particular day • No evidence of the gap between performance and potential • A poor instrument for testing some skills and dispositions such as critical thinking and creativity • May put too much emphasis on factual recall rather than depth of understanding
Teacher recommendation	• Can focus on a wide range of knowledge and skills • Based on ongoing knowledge of pupil • Particularly important for gifted and talented pupils moving from primary to secondary schools	• Can be inconsistent between teachers • Can be too dependent on compliance and diligence factors such as neatness and completion of work
Parental nomination	• Based on long-term knowledge of the child	• Depends on parental awareness and influenced by socio-economic status • Parents can be blind to their child's actual rather than perceived level of performance
Pupil nomination	• Can be motivating • Students are often aware of own strengths	• Requires social confidence and communication skills
Checklists	• Provide a framework for starting discussion • Build on others' work and knowledge	• Can become limiting if about completing ticks in a number of boxes • Can be limiting if not all areas are included
Pupil progress	• Shows rate of progress which can be a better indicator of ability • Can be used to judge whether pupils achieve beyond the level of attainment expected for their age	• Pupils need opportunities to show progress • Will be affected by motivation, which is not related to ability and may militate against underachieving able pupils
Cross-school aggregation by teachers	• Ensures that giftedness is seen across subject areas • Brings staff decisions to a collective forum	• Criteria may vary across departments • Some pupils may be exceptionally gifted in some but not all areas of the curriculum • May pay too much attention to standards achieved in tests
Cognitive assessment tests	• Can help support identification for those who underachieve • Standardised	• Time and cost of administration • May involve a cultural bias that discriminates against students from some backgrounds
Teacher observation in a range of contexts (including pupils' responses to their work and talking with them about what they like, dislike, and what enables them to learn best)	• Can identify those who demonstrate social or leadership skills, an aptitude for problem solving or acute listening skills	• Some learners can behave quite differently in and out of classroom situations

> *Gifted pupils who do not succeed in school are often successful in outside activities such as sports, social occasions and after-school jobs.*

1.4 Identifying gifted and talented underachievers

Identifying gifted and talented underachievers should be a major priority for any school. A proportion of gifted and talented pupils fail to make the progress indicated by their potential. In government school systems a disproportionate number of these students are likely to come from some specific disadvantaged backgrounds. It is here that there is the greatest possibility of talent going unrecognised. Underachieving students may be frustrated and may demonstrate some problematic behaviour.

1.5 Some major reasons for underachievement

Some of these will operate together and it may not be easy to separate whether poor learning has arisen as a result of poor teaching or from wider issues less related to what happens in the classroom:

- pupils having particular learning needs which militate against the pupils being able to show their level of understanding and skills in examination conditions

- pupils becoming disaffected with school and failing to attend on a regular basis

- pupils becoming disaffected with school and behaving inappropriately, often leading to a cycle of exclusion and poor attendance

- pupils not being stretched sufficiently in lessons and not being able to show their true ability, often leading to disaffection

- teachers being unaware of the potential of some pupils as they had insufficient data on pupil performance and/or failed to interpret potential

- social problems arising that are not primarily related to school.

A comment (Hymer, 2000) on boys' attainment is valid for all underachieving pupils:

> *'It is the range of possible factors associated with (boys') underachievement that makes the task of addressing the need so difficult for parents, teachers, education authorities and governments.'*

UK government advice indicates that gifted and talented underachievers may tend to:

- have low self-esteem

- be confused about their development and about why they are behaving as they are

- manipulate their environment to make themselves feel better

- take a superior attitude to those around them

- find inadequacy in others, in things, in systems, to excuse their own behaviours.

Underachievement, first and foremost, is a behaviour and, as such, it can change over time. Often, underachievement is seen as a problem of attitude or work habits. However, neither habits nor attitude can be modified as directly as behaviour. Thus, referring to 'underachieving behaviours' pinpoints those aspects of pupils' lives that they are most able to alter.

Underachievement is content and situation specific. Gifted pupils who do not succeed in school are often successful in outside activities such as sports, social occasions and after-school jobs. Even a pupil who does poorly in most school subjects may display a talent or interest in at least one school subject. To label a pupil as an 'underachiever' disregards any positive outcomes or behaviour that they display. It is better to label the behaviour than the child (for example, the child is 'underachieving in mathematics and language arts' rather than being an 'underachieving pupil').

Underachievement is in the eyes of the beholder to a significant extent. For some pupils (and teachers and parents), as long as a passing grade is attained, there is no underachievement. However, this is measuring achievement against a peer norm rather than individual potential. Underachievement is intimately concerned with the development of self-concept, with successes often dismissed as luck and challenges avoided.

Some small school-based research undertaken by Rule (*Inside Information*, 2006, pp. 4–6) found three key reasons for under-achievement in the classroom. These were:

- lack of challenge in the classroom

- a mismatch between teaching and learning styles

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In the UK, school inspectors have reported a tendency for some schools to identify a disproportionate number of gifted and talented pupils in economically favoured groups.

• differences between pupil and teacher expectations about levels of attainment.

As part of the school-based work that followed, a table was developed by Rule identifying behaviours associated with underachievement and possible reasons for them, which included those listed in Table 5.

1.6 Identifying gifted and talented pupils with special educational needs

At first sight it be might be tempting to dismiss the possibility of those with Special Educational Needs (SEN) being potentially or actually gifted and talented. However, this is clearly not the case. There are excellent athletes who are physically disabled, excellent communicators who are deaf and many with particular talents who have learning difficulties. To be formally identified by a school as both gifted and talented and having SEN may be unusual but it is entirely possible.

1.7 Identifying gifted and talented pupils for whom English is an additional language

In addition to cultural awareness, it is important to note that the gifts and talents of those for whom English is an additional language are often best recognised by people who can speak to them in the language they speak at home.

1.8 Identifying gifted and talented pupils within subject areas

At secondary school and college level especially, it is likely that the major focus for identification will reside within the individual subject department. In the UK, school inspectors have reported a tendency for some schools to identify a disproportionate number of gifted and talented pupils in economically favoured groups. In a 1997 study they argued that a specific approach for each subject needs to be fully developed. QCA has produced guidance on identification within subject areas. It is a good idea to look beyond your own subject area to see the sort of approach adopted by contrasting departments that can often be illuminating and sometimes challenge the assumptions we are all accustomed to make in our own area of expertise.

1.9 Identification of talent as opposed to giftedness

Whereas giftedness is concerned with performance, and especially academic performance as a whole, talent is about performance and skills in a particular area. This talent may well be within some facet of a subject rather than across a subject as a whole. For example, a pupil may be particularly skilled in a sport such as squash but may not be a great all-round athlete and may well be lacking in some areas. Similarly, in the area of drama some pupils may excel as actors, some may be unusually good at combining dance, acting and singing.

In all of the above, a key question arises for schools. How can we identify a pupil

TABLE 5: Possible Causes of Challenging Behaviours	
Behaviours	Possible reasons for behaviours
Challenging the relevance of activities set	'I simply can't learn like that… I have a passion for this subject but I'm frustrated that we can't study the really interesting bits.'
Spars with, and argues with, teachers	'You tell me what to think and say – you make me jump through hoops. You give me no ownership or independence, no freedom or choice.'
Comes alive in class discussions and says brilliant things in oral work but written work shows total lack of effort, care and pride	'I easily remember things the teacher says and things I read in books, so I don't see the point of having to write them down as well.'

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> *… talent is not just something that arrives fully blossomed.*

with a particular talent if they have had no opportunity to experience that particular area of the curriculum?

Parents and pupils can indicate some of their out-of-school activities and talents in any general school information gathering but it is important that such information is followed up so that the school is aware of the particular talents of its pupils in specific terms.

It is apparent that the opportunities afforded to children out of school will be determined primarily by the parents or carers of the children and will not be equal. Activities for children from certain groups are far more readily available for some children than others. Neelands *et al* (2005) question to what extent performance is determined by 'social rather than natural attributes'. This may arise as a matter of socio-economic status. It may also be an issue of culture. A pupil with a background where she has been exposed to music at home and has had individual tuition in playing an instrument, for example, may appear talented. However, she may be less potentially talented as a musician than others who have never had that opportunity and who might make more actual progress and have a potentially higher ceiling for performance.

Physical education (PE) departments readily identified pupils who were good at the most popular school sports and often, as in football, these were pupils with access to local teams and weekend clubs. In solo sports, like gymnastics and swimming, the basis of identification was weaker because previous provision – or information about it – was less common. Lacking specific criteria, teachers found it difficult to identify aspects of performance which gave early indication of latent talent, which, if appropriately developed, might lead to high achievement.

Something of the same pattern was evident in relation to dance and music, where pupils with strong previous experience evident at transfer to secondary school were more likely to be identified as talented than others. This highlighted the importance of access to previous provision and the crucial factor of parental support, including the ability to pay, for example, for instrumental music tuition

and transport. Some schools were alert to this issue and screened pupils for voice and instrumental aptitude in an effort to identify those who had had no previous opportunity. In other schools pupils were invited to volunteer for selection but this, of course, depended on the confidence and motivation of the individual pupils.

It is, therefore, important to give pupils as many opportunities as possible and capture potential talent through careful assessment where pupils are new to an activity, and to use parental and pupil information. It is also important to recognise any cultural bias that may exist in the opportunities on offer – especially in terms of minority ethnic groups and to assess continually for those who may have talent.

In their work on drama, Boardman *et al* (2007) noted the difficulties:

> 'How can any one Drama teacher identify a talented pupil with this much diversity?
>
> By breaking down Drama into its fundamental parts, we offer a system that gives pupils access to different areas of Drama. Just because someone is a talented actor does not make him or her talented in all aspects of the subject.
>
> What about the pupil who is a talented director but cannot act as effectively? This new system offers these pupils a chance to be identified in the talent they have and develop the other areas of Drama alongside.
>
> By creating an assessment policy which links many disparate strands of Drama and provides pupils with differing Drama skills the chance to shine and progress, we can offer a system which unifies different approaches.'

They saw as a key part of their work the need to develop talent:

> 'In line with recent research we also wanted to help create talent… talent is not just something that arrives fully blossomed. It needs cultivating and guiding. We felt that was the job of the Drama department – helping to create talent.'

For such a situation to work, identification and provision go hand-in-hand and inform each other. They are interdependent.

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Step 2: Developing a whole-school approach

" … an inclusive approach, seeking to extend provision to as many pupils as possible and to improve classroom practice in line with the development of personalised learning. "

This chapter examines how to move towards a whole-school approach for gifted and talented learning.

It assumes that schools will:

- have in place an agreed process for identifying gifted and talented pupils

- ensure that all staff understand this and use the identification policy

- keep an accurate record of identification and assessment data relating to gifted and talented pupils

- review individual progress of gifted and talented pupils on a regular basis

- self-evaluate and update the school's gifted and talented policy as necessary.

2.1 Developing a school-wide policy

A consistent school-wide approach to giftedness is much more likely if there is an agreed whole-school policy document setting out how all staff are expected to address the issue. This policy should be consistent with other school policies, and should adopt:

'an inclusive approach, seeking to extend provision to as many pupils as possible and to improve classroom practice in line with the development of personalised learning.'

(Developing Expertise: School-based Case Studies)

In particular, a policy for gifted and talented pupils should link with the school's vision and mission as well as policies on teaching and learning, assessment, and pastoral support. By making such links the policy is in less danger of standing alone and more likely to be integrated into all aspects of school life. In the best cases, it may not be possible 'to disaggregate the impact of G&T specific practice and provision from other school initiatives'.

A school's provision for gifted and talented pupils should be coherent and consistent:

- across age groups

- across gender, and socio-economic, racial, cultural and religious groups

- across and within subject areas

- amongst teachers.

UK government advice on developing an effective policy for gifted and talented learners is that the following areas should be included:

- Policy rationale and aims

- Definitions

- Identification

- Provision

- Organisational issues

- Transfer and transition

- Resources

- Monitoring and evaluation.

The policy may also include a commitment to maintain a register of gifted and talented pupils. In England the government expects all schools and colleges to identify their gifted and talented learners and to maintain a register, just as they expect a school to maintain a register of students with SEN. The register will be a repository for up-to-date information about needs, provision and progress. An effective register will assist in monitoring provision and its effectiveness at all levels and in tracking progress, both individually, as subgroups and as a cohort. (See Table 6.)

TABLE 6: Developing a school-level policy: checklist of questions to address
The school-level policy needs to answer the following questions:
Q. *What are we going to do and why?*   **Q.** *Who will benefit?*   **Q.** *What do we expect to achieve?*   **Q.** *Who will carry it out?*   **Q.** *How will we do it?*   **Q.** *What do we need to be able to do?*   **Q.** *How will we know we have achieved success?*   **Q.** *How will we evaluate and improve?*

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Step 3: Identifying staff roles and the Lead Teachers

" … it is widely accepted that a single member of staff needs to be designated as having whole school responsibility for issues related to gifted and talented students."

Meeting the needs of gifted and talented students has to be seen as the responsibility of all staff. At the same time, it is widely accepted that a single member of staff needs to be designated as having whole school responsibility for issues related to gifted and talented students. Clearly the role of such a Lead Teacher is potentially very influential but is unlikely to have great impact without the active support of the school's leadership team. The exact responsibilities of the Lead Teacher may vary from school to school. However the role is interpreted, much will depend on the amount of non-contact management time allocated for this purpose. The two key aspects of the role are likely to be:

- the development of whole-school self-evaluation and improvement planning for the provision and outcomes for gifted and talented pupils

- the development of effective classroom practice for gifted and talented pupils.

The UK government advises that the role of Lead Teachers also includes:

- Audit, planning and review (including ensuring effectiveness of: provision, opportunities for professional development, communication across subject areas, transfer and transition between schools, mentoring, assessment, and equal opportunities)

- Leadership and management (including monitoring, evaluating, implementing and refining policy)

- Enhancing own knowledge, skills and understanding (such as keeping up to date with strategies for identifying and providing for different types of ability, as well as keeping in touch with key national organisations and with coordinators in other schools)

- Professional development and raising awareness (including supporting colleagues and raising their awareness, and liaising with those with responsibility for continuing professional development)

- Liaison to broaden the curriculum (such as encouraging the use of resources from the wider community)

- Sharing information (including links with feeder and receiving schools or colleges)

- Support and monitoring (such as working with others involved in supporting individuals' learning (e.g. classroom assistants, social workers, careers advisers), working closely with tutors and teachers to support pupils' social and emotional needs, and fostering good relationships and liaison with parents). (See Table 7.)

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TABLE 7: The Role of the Gifted and Talented Lead Teacher/Coordinator
1. Audit, planning and review
The gifted and talented coordinator should make a significant contribution to review of the school approach, with audits covering the following: • effectiveness of provision: pace, breadth and depth within the curriculum • opportunities for professional development • communication across subject areas on provision for the gifted and talented • the effectiveness of transfer and transition from previous schools • mentoring systems and support for independent learning • assessment policy • equal opportunities, particularly where grouping and selection is involved.
2. Leadership and management
• Monitoring, evaluating and refining an institutional policy for meeting the needs of gifted and talented young people, in conjunction with the headteacher/principal and school board. • Taking a leading role in implementing the whole-institution policy, supported by senior and middle management; reporting regularly to the senior management team and school board.
3. Enhancing own knowledge, skills and understanding
• Keeping up to date with the range of strategies for identifying and providing for different types of ability • Keeping up to date with developments and thinking in the teaching of gifted and talented learners • Keeping in touch with key national organisations and with Lead Teachers in other schools.

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Step 4: Providing for students

… subject-based acceleration is more common in some subjects than others, notably mathematics and modern foreign languages.

4.1 Extension

Providing for gifted and talented students within the mainstream classroom is commonly referred to as **extension**. Extension involves pupils following a 'standard' curriculum but to a different depth. This is achieved through the provision of more complex resources and materials but especially through tackling more challenging questions and tasks, which require higher levels of thinking and greater breadth and depth of knowledge.

Acceleration can be applied either to individual subjects or across the range of subjects. It is much more widely applied in secondary than in primary schools. Acceleration involves moving a gifted or talented learner or group of learners to work with a group of older children or young people. There is evidence that, until recently, subject-based acceleration has been more common in some subjects than others, notably mathematics and modern foreign languages. There has been little attention paid to the rationale for this and little discussion of the relative appropriateness of acceleration in such subjects. It can also involve an entire cohort undertaking a course of study normally associated with older learners. But a faster pace of learning can be introduced for smaller numbers of pupils without removing them from their normal class.

Acceleration often involves completing an age-related programme at a more rapid rate than is normal or in taking a qualification early. Feldhusen (2003) notes that many gifted and talented pupils have 'the motivation and the ability to surge ahead of what is normative for their ages and grade levels' and benefit from exposure to more advanced materials and challenge.

4.1.1 Compacting and extension

The phrase 'compacting' has been used to describe a shortening of existing course materials. The rationale for this is that gifted and talented pupils especially may already be familiar with a significant proportion of course content which will allow a course to be covered in less

than the required amount of time. This would allow further enrichment or extension within the subject or create time for alternative courses.

For pupils who complete accelerated programmes of study there are a number of options which include:

- additional enrichment curriculum

- taking additional qualifications and/or new subjects

- working on the next key stage at an earlier age.

4.1.2 Acceleration in primary schools

Acceleration in the Early Years needs to be considered most carefully, as some children enter school having had greater opportunities than others and can appear very bright until the less advantaged catch up. (This is not to suggest that the more advanced children should mark time. They should be encouraged to progress their learning from the outset.) Partial acceleration may be appropriate for some children (for example, a Year 1 pupil working with a Year 2 or Year 3 group for writing, reading or mathematical activities, but staying with peers for other activities). In mixed-age classes, partial acceleration may happen as a natural part of classroom organisation. However, accelerating learners to a class or classes with teachers who are untrained in receiving younger pupils may be counter-productive: there could be significant emotional costs in terms of loss of friends, which can be compounded by an individual's lack of maturity, delayed emotional development and smaller size.

4.1.3 Teaching extension programmes

For extension to be effective teachers need a good knowledge of the subject at a higher level than they would normally work at with a given age group, as well as a good knowledge of the pupils' abilities and personalities, and good pedagogical skills, especially as relates to questioning and problem-solving and the use of more open-ended tasks.

Before undertaking acceleration, the school needs to have a clear view of the long-term

> *Even where grouping is used to reduce the range of ability within a set, there will remain a wide range of abilities and learning styles.*

implications of its actions. This may involve thinking about the following questions:

- What will be the impact on the students?

- How will the subject(s) be taught?

- How will the time created be used?

- What, if any, are the social and emotional implications of acceleration?

- What will be the impact on standards achieved and reported?

- What staff training might be needed?

- How will decisions be communicated to key stakeholders, especially parents and students?

There are both advantages and disadvantages to using acceleration programmes, as shown in Table 8.

4.1.4 Grouping learners to meet different needs

When deciding how to group learners, schools and colleges need to be clear about what they are trying to achieve and use the different forms – setting, within-class grouping and mixed-ability grouping – selectively and flexibly. In schools where there is ability grouping, streaming has now largely been replaced by setting. Streaming involved students being permanently separated into different ability 'streams' for all subjects. Setting is a more flexible arrangement whereby there are specific ability groups for subjects or groups of subjects. Historically, setting has been used more in subjects which have been perceived to be 'linear', such as languages, mathematics and science, and setting has been less common in art, music and physical education.

4.1.5 Issues that need to be addressed in setting

- The need for a clear rationale for placement within a set

- The need for robust assessment data to underpin decisions about setting

- The degree of flexibility and mobility required so that setting can be fine-tuned

- Timetabling where sometimes subjects are grouped together for setting purposes but where pupils may have quite different abilities between subjects

- Ensuring that teacher expectations remain high for 'lower' sets

- The behaviour and motivation of students, including those in 'lower' sets.

Even where grouping is used to reduce the range of ability within a set, there will remain a wide range of abilities and learning styles. Studies show that there is a tendency to:

- limit the scope of differentiation in a set, on the assumption that the group is homogeneous

- use whole-class teaching with a more uniform approach and a fixed pace

- place greater emphasis on curriculum coverage at the expense of depth of knowledge and understanding (with higher sets). (See Table 9.)

4.1.6 Within-class grouping

Within-class grouping (i.e. learners working in groups established by the teacher) is a feature of many primary schools' practice, and is now increasingly common in secondary schools that use group work (particularly for literacy and numeracy).

TABLE 8: Issues and advantages of extension	
Potential advantages	**Issues**
Provides additional learning opportunities within the classroom	Depends upon the soundness of the original curriculum
Makes higher demands on pupils	Students may resent the additional burdens placed on them
Builds on the conventional curriculum	Makes high demands on teacher knowledge
Is not divisive	Logistics and/or funding can be an issue

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TABLE 9: Issues and advantages around setting	
Potential advantages	**Issues**
Reduces the ability range within a class and allows a tighter match between teaching and learning	There will still be a wide range of abilities and learning styles within any set
May motivate those in higher sets	May demotivate those in lower sets
Can increase pace for the more able	May demotivate those who see higher sets as 'geeky' and have ability but try to avoid these sets
Can support acceleration and enrichment	Movement between sets can be difficult to achieve and continuity can be affected where pupils move sets
Peer group challenge is more likely, especially in higher sets	Pupils may be placed according to behaviour as much as on ability
Can ease the burdens of teacher planning	Can lead to difficult-to-manage lower sets
	Most learners are not exposed to the ideas of able peers

Although most internal grouping is based on ability, other forms of grouping are possible. These include:

- social groups
- mixed-ability groups
- learning-style groups
- shared-interest groups.

The most important aspect of grouping is the educational reason for the grouping. This may, especially in primary schools, where the bulk of the curriculum is likely to be delivered by the same teacher in the same environment, vary appreciably from subject to subject and for aspects within a subject. It is important to avoid the feeling of a pecking order by ability groups which are permanent.

Much of the research into the effects of within-class grouping on learners of different ability levels suggests that it has a positive impact on the achievement of all learners. (See Table 10.)

TABLE 10: Issues and benefits around within-class grouping	
Potential advantages	**Issues**
Supports the teacher to modify learning outcomes for particular groups	Is flexible and can be changed quickly
Allows a focus for teacher and other adult support	May lower expectations for some groups
Can increase pace for the more able	Much group work is not actually group work but about individual working alongside others
Is flexible and can be changed quickly	Too often, ability grouping alone is used
Can allow pupils to work with different groups of pupils	Internal hierarchies in pupils can be reinforced
Supports cooperative learning and social and educational communication	Can reduce the amount of time available for class teaching
Involves more pupils at an appropriate level	

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Learning mentors are making a significant effect on the attendance, behaviour, self-esteem and progress of the pupils they support…

4.1.7 Mixed-ability grouping

When it operates well, mixed-ability grouping can support all learners appropriately. Many subject and class teachers manage it successfully by using a wide range of teaching strategies, differentiated teaching materials and assessment.

However, mixed-ability grouping is both challenging and demanding for teachers. Where it is inadequately resourced or practised, it can depress the achievement of some learners (often the most and least able). Mixed-ability grouping:

- gives all pupils access to a shared curriculum

- promotes cooperative behaviour and social integration

- makes it easier for the staff to address individual needs

- reduces competition and labelling

- allows individuals to learn at an appropriate pace

- allows learners to be stimulated by others and/or their needs.

However, in terms of more able pupils, mixed-ability grouping may fail to stretch them and, on occasions, they may develop social skills working with the less able but fail to capitalise on their learning potential. The composiiton of groups and setting of tasks by the teacher also requires careful consideration and there can be a tendency to allocate time unequally between groups as a result of the needs of some pupils.

Where mixed-ability grouping is poorly planned and implemented there can be a failure to meet the needs of learners, particularly the most and least able.

4.1.8 Mentoring

Mentoring is a relatively recent intervention in schools and was introduced in England through the Excellence in Cities programme. It is a tool for empowerment and has proved especially useful in terms of supporting pupils to reach their potential. It has thus been used increasingly for students who are gifted and talented. For the mentor–mentee relationship to work there must be time, trust, mutual respect and some common ground.

A good mentor does not provide answers but opportuniites for the mentee to reflect, plan and come up with their own solutions. As part of this the mentor will help the mentee to develop confidence and gain in self-awareness.

'Mentoring is to support and encourage people to manage their own learning in order that they may maximise their potential, develop their skills, improve their performance and become the person they want to be.'

Eric Parsloe, The Oxford School of Coaching and Mentoring

In England, the Learning Mentors section on the Standards website 'provides a broad range of information and support materials relating to Learning Mentor provision for schools and colleges.' The Learning Mentor Functional Map (available on the home page) describes the work as providing 'support and guidance to children, young people and those engaged with them, by removing barriers to learning in order to promote effective participation, enhance individual learning, raise aspirations and achieve full potential.' See Children's Workforce Development Council (CWDC) (2008) Learning Mentor Functional Map, at **www.cwdcouncil.org.uk/learning-mentors/ management-and-support-materials**

The approach in England divides the work into three broad areas:

- providing a complementary service that enhances existing provision in order to support learning, participation and the encouragement of social inclusion

- developing and maintaining effective and supportive mentoring relationships with children, young people and those engaged with them

- working within an extended range of networks and partnerships to broker support and learning opportunities, and improve the quality of services to children and young people.

Learning mentors were one of the most successful elements of the Excellence in Cities programme for schools in England serving disadvantaged urban communities.

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'Learning mentors are making a significant effect on the attendance, behaviour, self-esteem and progress of the pupils they support… the most successful and highly valued strand of the Excellence in Cities programme… In 95 per cent of the survey schools, inspectors judged that the mentoring programme made a positive contribution to the mainstream provision of the school as a whole, and had a beneficial effect on the behaviour of individual pupils and on their ability to learn and make progress.'

Excellence in Cities and Education Action Zones: management and impact (Ofsted, 2003)

As relates to the gifted and talented, mentors have been used in quite different ways, including:

- supporting the underachieving able pupil

- developing academic excellence in a specific subject or talent area

- developing a range of higher-level skills through business links

- peer mentoring within a school with older pupils mentoring younger pupils

- providing support at a time of transition.

In one example cited on the QCA website, mentoring suport is made available to talented sportsmen and women who are part of regional and/or national teams.

'Working in close partnership with selected national governing bodies of sport, staff at the school provide neutral mentor support to talented sports performers. These teachers, from a range of subject areas, are available to help talented pupils balance their academic studies with the demands they face as international athletes. The mentor works with young athletes, their parents and coaches to map out a plan that takes into account the pupils' aspirations and needs throughout their school career. Although extremely demanding, the role of mentor is very fulfilling and rewarding. The school has also developed strong links with the local university, which provides sports science support to talented pupils.'

In another example, the focus was on academic achievement in the sixth form and preparation for university. The school targeted two local universities and approached tutors in different subject areas to find out whether they were interested in building links with the school. Very quickly, the school had a visiting academic mentor in most key subject areas.

'The most able pupils in Years 11 and 13 (including some who were underachieving) were asked to choose two subjects in which they would be interested in extension work. About once a term, they had a 20-minute academic review with mentors in these subjects. At the meetings, the mentors explored the pupils' current work in the subject and checked their depth of understanding, while the pupils found out about the mentors' current research or work interests. Action points for the pupils' progress were identified (often new areas to research or internet sources to investigate). These were openly shared with subject teachers, who also found them a helpful indication of new directions of thought and study.'

The majority of pupils found the experience rewarding and stimulating, and became more interested in their work. Results improved, especially at the higher grade levels. Underachieving pupils, in particular, gained motivation from the experience.

Gifted and talented pupils may also be mentors themselves to other pupils including those who are gifted and talented. This accords with the thinking in Bloom's taxonomy where teaching others is the highest level of skill consolidation and development.

This may occur academically or in other areas of the curriculum and school life. Kings Norton High School, for example, decided to introduce sports mentors to try to improve behaviour and the quality of play at lunchtimes as part of the mentor's development of leadership skills. Staff selected nine Year 11 pupils from the GCSE PE group who they thought could be good sports mentors. The pupils were trained to lead and organise activities for younger pupils. Several were called in to help with primary school healthy days and other events.

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> *Enrichment involves offering learners a wide variety of opportunities…*

Within Dowdales School the concept of mentoring was used as a key part of their work to see how they could make use of the Quality Standards for the gifted and talented, which were then at a consultative stage. They found that the mentoring element was a strong tool that led to improved relationships between staff and pupils and they anticipated a positive impact on results which was realisable during the timescale of their work. (See Table 11.)

4.2 Enrichment

Providing for students through additional and supplementary experiences is commonly refered to as enrichment. Enrichment involves offering learners a wide variety of opportunities, not usually encountered as part of the standard curriculum. This might include visits, additional clubs, speakers, or the use of the community and resources such as higher education, museums, galleries. As with extension, there are both advantages and disadvantages to working in this way, as shown in Table 12.

Research has shown that enrichment does result in greater gains in learning for gifted students compared with gifted students who do not receive enrichment (see Rogers, 1991). Enrichment can also produce substantial improvements in achievement, critical thinking, and creative thinking for gifted and talented learners (Vaughn *et al* 1991). Gains appeared

TABLE 11: Issues and advantages around mentoring	
Potential advantages	**Issues**
Builds or consolidates relationships between pupils and adults	Requires adult time
Provides quality personal time	Needs to be a priority and happen at regular intervals
Provides personal challenge	Requires quality mentors
Is motivational	Requires a good match between mentor and mentee
Is of benefit to the mentor as well	Can be seen as about giving answers rather than setting a framework for decisions
Is seen as relevant by pupils	
Is especially useful for underperforming pupils	
Impacts positively on standards	

TABLE 12: Issues and advantages of enrichment	
Potential advantages	**Issues**
Provides additional learning opportunities at a high level	Can be divisive as these opportunities may not be open to all
Can be motivating for those who participate	Can be demotivating for those who do not participate
Is unrestricted by conventional curriculum	Can be poorly related to the basic curriculum
Provides the opportunity often to work with different 'teachers' in a different environment	Logistics and funding can be an issue
Can develop interest and stimulation and offer signposts to future study	Can be too onerous in what is expected of the pupil

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to be greatest for achievement when the experience was an extension of the regular classroom curriculum (Rogers, 1993).

Examples of enrichment activities

Enrichment relates to breadth of study and experience. Examples of enrichment could include:

- developing a broader curriculum alongside the statutory curriculum to enrich and enhance provision

- subjects such as philosophy, additional languages, drama, music, astronomy, statistics, chess, debating groups

- encouraging students to work in short target groups on specific issues or projects for a relatively short period

- community projects, competitions, mini-enterprises

- subject-specific study support.

Ensuring quality

Although enrichment activities can be an optimal means of providing opportunities for students' potential to be released, they can be difficult to link back to mainstream work:

'Many schools tend to make sure that schemes of work set out what is meant by a high level of challenge and 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, para 126)

The quality of enrichment/study support is also important. The UK government suggests study support opportunities work best when:

- they are delivered by enthusiasts

- they are carefully planned, evaluated and modified as and when necessary

- they have clear outcomes which relate to pupils' needs and have a tangible end-product e.g. certificates, better examination grades

- they are directly relevant to classroom activity, not bolt-on

- children are correctly chosen to participate in study support activities

- pupils and parents have clear expectations and responsibilities

- they are related to NC content and can extend student understanding or are in an area of student interest outside the NC

- they involve partners from the local community

- external agencies or local teachers providing study support are well trained and have experience at working with these students
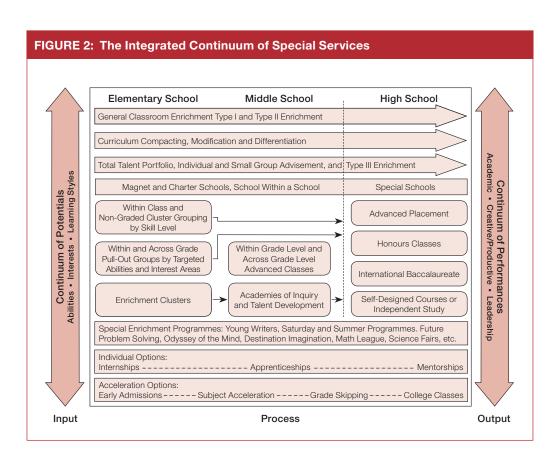
- they are fun.

The Schoolwide Enrichment Model

One of the most well known enrichment programmes is the Schoolwide Enrichment Model (SEM). The SEM is an organisational plan for delivering enrichment and acceleration through an *integrated* continuum of services (see Figure 2). The word 'integrated' is emphasised because maximum payoff is achieved when a service provided through one component of the model enables students who show superior performance or advanced interest to escalate their experience through options that might be available through other service delivery components. Services provided by the model range from general enrichment for both wide-ranging and targeted subgroups to highly individualised curriculum modification procedures for rapid learners and first-hand investigative opportunities for highly motivated individuals and small groups. The model also includes a broad array of specific grouping arrangements based on commonalities in abilities, interests, learning styles, and preferences for various modes of expression (Renzulli and Reis, 2008).

4.3 Combining extension and enrichment

Enrichment and extension need not be mutually exclusive and perhaps the best strategy is to do both: create a mainstream classroom environment that meets the needs of gifted and talented students, while also providing additional targeted opportunities. Indeed, some academics warn that enrichment programmes alone 'are, even at best, potentially dangerous if not accompanied

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FIGURE 2: The Integrated Continuum of Special Services

	Elementary School	Middle School	High School	
Continuum of Potentials Abilities • Interests • Learning Styles	General Classroom Enrichment Type I and Type II Enrichment			**Continuum of Performances** Academic • Creative/Productive • Leadership
	Curriculum Compacting, Modification and Differentiation			
	Total Talent Portfolio, Individual and Small Group Advisement, and Type III Enrichment			
	Magnet and Charter Schools, School Within a School		Special Schools	
	Within Class and Non-Graded Cluster Grouping by Skill Level		Advanced Placement	
	Within and Across Grade Pull-Out Groups by Targeted Abilities and Interest Areas	Within Grade Level and Across Grade Level Advanced Classes	Honours Classes	
			International Baccalaureate	
	Enrichment Clusters	Academies of Inquiry and Talent Development	Self-Designed Courses or Independent Study	
	Special Enrichment Programmes: Young Writers, Saturday and Summer Programmes. Future Problem Solving, Odyssey of the Mind, Destination Imagination, Math League, Science Fairs, etc.			
	Individual Options: Internships – – – – – – – – – Apprenticeships – – – – – – – – – Mentorships			
	Acceleration Options: Early Admissions – – – – – Subject Acceleration – – – – – Grade Skipping – – – – – College Classes			
Input		**Process**		**Output**

or followed by acceleration of placement in subject matter and/or grade' (Stanley, 1979).

A lot of time and energy is often spent deciding whether differentiation should focus on acceleration versus enrichment for gifted learners. In reality, the distinction between these two is often blurred as high quality enrichment often results in acceleration and typically involves advanced content (Olszewski-Kubilius & Limburg-Weber). Schiever and Maker (1997) build upon the work of others in making the case that acceleration and enrichment are inextricably bound together. They use the metaphor of water and heat, which, when combined under the right conditions, produce a qualitatively different product – steam. Similarly, acceleration and enrichment processes applied simultaneously to a curriculum have the potential to change it from something that does not meet the needs of talented students into something qualitatively different that does.

The decision about whether to provide enrichment or acceleration to students is dependent upon several factors, including the level of ability of the student to think and reason in the subject area and the mesh between the student and an accelerated placement. The more advanced the students' abilities are, the more likely some form of acceleration is appropriate. Factors such as the student's physical size (i.e. ability to blend in with older children), comfort with older peers, and support from family and teachers affect a student's compatibility with some forms of acceleration. Compatibility varies with the type of acceleration. For example, blending in with older students is not a concern with a fast-paced class in which students are all the same age, but will be an issue with grade skipping (Olszewski-Kubilius & Limburg-Weber 1999). Researchers suggest that acceleration programmes are best applied to disciplines in which progress is continuous and exposure to higher levels of curriculum is beneficial (e.g. mathematics or foreign languages) whereas enrichment programmes are best applied to areas in which depth and breadth of work can be manipulated (e.g. literature or history) (Passow, 1996).

Step 5: Troubleshooting

"Gifted and talented learners are not a homogeneous group."

In addressing whole-school provision it is worth recognising that there could be resistance to the whole concept of making provision for the gifted and talented. Table 13 encapsulates the stereotypical positions relating to provision.

Whatever you think of the individual arguments (and research and current practice hold mixed views) it is apparent that addressing the needs of those who are gifted and talented may be contentious. Without agreement at school level about how to identify and make provision for gifted and talented pupils, issues and undercurrents are likely to remain, impacting negatively on provision and performance.

5.1 Myths about characteristics of gifted and talented learners

Gifted and talented learners are not a homogeneous group. They cannot therefore display group characteristics, yet they are sometimes stereotyped in this way and can suffer from an image of 'geekinesss'. Table 14 encapsulates the stereotypes, and their opposition.

TABLE 13: Stereotypical views about making provision
Why should we deploy more resources to those who are doing well when we have other more deserving cases?
Pupils should not be subjected to extra pressure because they are able and should be allowed to be children and just enjoy school.
We should not give pupils a label as it places undue pressure on them and may alienate them from others.
No need to intervene. We are talking about able pupils who may be deemed, almost by definition, as those who are likely to succeed.
Parents with aspirations for their children, often from particular social groups, will access provision unequally and so social equity will be further unbalanced.
If we accelerate these pupils then what will they do in future classes when they have already covered the work?
If we identify pupils as gifted and talented and later take them off a gifted and talented register, how will this make them feel?
We do not really have such pupils at our school and we should not be engaged in making specific provision.

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TABLE 14: Stereotypical views about gifted and talented learners	
View	**Opposition**
Gifted and talented pupils are good at everything	This is clearly untrue and true giftedness and talent may well lead to in-depth interest and study of a particular area.
Learning comes easily to them at all times	Pupils may be struggling with concepts that are beyond their immediate understanding.
Gifted and talented pupils are socially and emotionally mature	Pupils are individuals and have social and emotional needs that may be the same as their peers. However, they may also benefit from working with older children.
Gifted and talented pupils are the top 'x' per cent in a given population	Giftedness and talent emerge in different ways and not all pupils with talent excel as they might.
Gifted and talented pupils love to work	This may be true in a particular area of skills, knowledge or interest but the time spent here may militate against the time available for other work.
Gifted and talented pupils are social isolates	Campbell *et al* (2006) examined the particular characteristics of gifted and talented pupils. In all aspects the pupils in the survey showed very positive self-concepts and self-esteem: 'Gifted and talented pupils describe themselves as being popular with their peers and teachers, enjoying school, having good relationships with their parents and having very positive self-concepts and self-esteem.'

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