

## Section 6: Getting the most out of the most able students

Extension is a term used to include a variety of methods of providing stimulation, challenge and pace for able pupils. It involves teachers in planning appropriate differentiation for quick learners rather than requiring them to do 'more of the same'.

Extension also addresses the issue of gifted and talented students coasting along inside their comfort zone; if they aren't stretched and never meet difficulty or failure, their development as learners is impeded and they are not being prepared for adult life. Effective extension also encourages seemingly 'average' pupils to respond to challenge and demonstrate their (sometimes unexpected) ability.

Teachers can provide challenge in various contexts, presenting particular problems and activities to the whole class or to targeted groups on different occasions, and ensuring that all pupils regularly experience challenge (including those inclined to be lazy, and the disaffected).

### Planning

Extension should be part of any planning system but a popular model is the '**All must, most should, some could**' approach. This outlines the core concepts, skills, or knowledge to be achieved by all, with extensions that should/could be attempted by those who succeed.

There are two factors to bear in mind:

- teachers should be aware of what constitutes the essential ingredients of ability (as opposed to knowledge) in different subject areas, with the development of skills, concepts and attitudes being emphasised rather than content. Well-designed extension tasks promote higher-order skills such as speculation, inference, prediction, hypothesis and synthesis, as well as nurturing independence and self-knowledge.
- not all types of extension can be planned for. Effective teachers will notice opportunities to extend pupils in the course of lessons, eg, when they ask a particularly interesting question or demonstrate a depth of understanding over and above their peers.

### Extension by resource

Every department should have resources that are 'more challenging' than others. These can include:

- books with more complex text and/or diagrams
- a tool or piece of equipment that requires more dexterity or technical expertise
- an artefact that is more obtuse in its function or design
- a medium that is more difficult to work with (eg, in art, textiles or food technology) ➤ more exacting technology.

### Extension by work rate or pace

Highly Able students often think and work faster than their peers, and teachers need to take account of this. Those who are capable of working fast should be encouraged to do so, without fear of having to complete more work than everyone else – especially 'more of the same'.

### **Extension by task or input**

Using the 'all must, most should, some could' format enables teachers to set extension tasks for the most able, or provide a range of options for extension work from which they can choose. The drawback of this approach is that unmotivated pupils, however able, may not always reach the 'higher-level' work. A common starting point that allows for a wide variety of individual responses is more inclusive and can result in able pupils being suitably engaged and challenged. Teachers should be aware, however, of the needs of those More Able pupils who require structure and guidance.

### **Extension by individual negotiation**

In some lessons, pupils might negotiate the nature of the work they are to do, or the ways in which they might present its outcomes. In technology and other process-based subjects, pupils have to demonstrate competencies rather than knowledge; and by their nature, these require pupils to develop individual work. This approach is especially suitable for pupils who have good organisational skills as well as good ideas and can confidently manage their schedules.

### **Extension by support**

It should not be assumed that extension tasks always imply less need for guidance, structure or personal support. Many pupils, including some who are highly able, have problems with organising themselves and/or their tasks and for them, some scaffolding of their learning can help. This type of support need not displace challenge, or the need for pupils to take risks. Guidance on short-term learning targets and longer-term goals and explanation/negotiation of assessment criteria can also be helpful. In addition, timely interventions and challenges from an adult will prevent the tendency of some able pupils to coast along, to 'lose the plot' or to get bogged down in meticulous detail.

### **Extension by dialogue**

Teachers can use more difficult vocabulary and more complex language to extend More Able pupils.

Challenge can be extended by:

- asking probing questions
- effective discussion between teacher and pupil
- well-constructed opportunities for collaborative discussion between pupils
- interventions by the teacher to take the concept further, explore the idea more broadly or interpret the task in a different way.

### **Built-in extension**

Activities can be designed with 'built-in extension' by employing some generic features, such as:

- plan/do/review
- using a range of information sources
- recording in an unusual way
- role play
- problem solving
- decision-making, eg, who does what in the group, what to include in a presentation and what to leave out
- open-ended tasks that do not have one right answer
- setting the questions to given answers
- time restraints
- developing meta-cognitive knowledge
- opportunities to develop higher-order thinking skills (HOTS)

- using technical language
- working with experts
- considering moral/philosophical issues.

**At the Chalkface – practical suggestions for differentiating your lesson for More Able pupils** What makes a well-differentiated lesson that hasn't taken you longer to prepare than it takes to deliver? Below are some practical suggestions to help you engage and challenge your able, gifted and talented pupils in a mixed-ability class.

### **By task**

- Use an able pupil to quickly recap on the previous lesson's learning for the other pupils.
- Many starter activities require pupils to find a number of examples. An able pupil can be set a higher target, eg Level 4 pupils find five synonyms for the word 'pleased', Level 7 pupils find 9
- If you are taking feedback during the lesson, enlist an able pupil to record ideas on the board while you lead the discussion.
- Ask able pupils to model their writing or thinking, by explaining their answer/solution to a task to a neighbour.
- The best way to prove understanding of a topic is to teach it. Get able pupils to teach the less able a key learning point.
- Use Highly Able pupils to provide the plenary. Alert them at the start of the lesson to be ready to present their findings to the class at the end of the lesson.
- Ask able pupils to come up with questions to ask during the plenary to test other pupils' understanding of the lesson.
- Use higher-level questioning and direct questions at particular pupils rather than waiting for the hands up approach. Be ready to probe beyond the first answer in order to make them really think: 'Why do you think that?' 'How did you come to that conclusion?'

### **By resource**

- Provide dictionaries and ask able pupils to look up and explain definitions of key words or technical vocabulary used throughout the lesson.
- Produce laminated pupil-speak grade or level descriptors at the start of the year for generic assignments and reuse them for target setting and review.
- Provide unedited or full-length versions of abridged texts you are using with the rest of the class for your most able.
- Ask the school librarian to produce a reading list of texts and electronic resources to encourage wider reading or research around a class topic.
- Set an independent task, such as a further investigation in maths or science, or a different class reader from a selected list and invite pupils to decide how they would like to demonstrate their learning to you or the rest of the class after an agreed length of time.
- GCSE questions with Year 9 and so on.

### **By outcome**

- Use the now familiar 'Must do', 'Could do', 'Should do' ascribed to classroom tasks or homework to direct the type and length of activities pupils might complete.
- Provide opportunities for pupils to respond in ways other than writing: display work, role play, short video films etc.

- Remember that 'less is more' in some cases. Prescribe the number of words to be used to make Highly Able pupils think hard about what they write, and make every word count.
- If you have a PC or laptop connected to an interactive whiteboard or data projector and a digital camera, take a snapshot of a pupil's work and during the lesson, project it onto your board to use for modelling purposes. If your board is interactive you can highlight or annotate key features of successful examples and provide opportunities for self- and peer assessment.

### **By support**

- While other pupils are working on a simple starter use the time to explain to able pupils how they can excel in the lesson, which lower-level tasks they can bypass and which tasks they should tackle to stretch them.
- Ascribe the roles of chairperson or lead learner to able pupils who will then take on the mantle of responsibility and help maintain momentum and focus during tasks.
- Plan your groups carefully. Sometimes able pupils will learn most productively together, sharing and extending their more developed thinking; sometimes it is helpful for them to advise a less-able pupil and have to work harder to successfully articulate their ideas.
- Rather than repeating or summarising instructions yourself in front of the whole class, get an able pupil to do so.
- Use confident older pupils (Year 13 pupils) as teaching assistants to extend able pupils' experience, understanding and skills.

### **The KWL strategy**

**Know**

**Want to know**

**Learned**

#### **What does KWL bring to a lesson?**

- Multiple solutions opportunities
- A focus on listening skills
- Differentiation by outcome
- A focus on independent thinking and learning
- The opportunity for high-quality structured research
- A potential focus on aspects of literacy, such as key concepts and vocabulary
- Opportunities for creative thinking and the generation of higher-order open questions
- Metacognitive techniques for self-reflection.

These examples show how KWL activities transfer across subjects:

- Students in physics could be asked how the universe came into existence and what they know about its origins. Having completed the 'K' and 'W' parts of the table, they could be exposed to a section of video or text and then asked to complete the 'L' column.
- In English, students may be asked to think about the key similarities and differences between the styles of two poets. Having completed the 'K' and 'W' columns and having listened to and discussed examples of work from the two poets, students can then complete the 'L' column using the appropriate literary terms.
- In a geography lesson, students could be quizzed on the possible reasons as to why earthquakes and volcanoes occur. Having filled in the 'K' and 'W' columns and

having researched the topic using books and the internet, the 'L' column can be completed. (adapted from Jo Smith)

### **Lessons for pace**

Pace has always been an important component of a successful lesson, particularly with able or gifted groups of high-achieving students who are more than able to cope with 60 minutes of rigorous challenge, who thrive on the demands of a lesson that asks them to move quickly through exposition and review to get to new learning points and spend time developing and extending new learning.

Tips for creating pace within lessons:

- While pupils are working on the starter activity, prepare for the next activity (by writing on the board, distributing the next resources).
- Give your instructions for the main activity or key learning points verbally and visually.
- Have a clock in your room that all can see.
- Make the circumstances of learning clear and enforce them: silent work, two minutes to ask your partner any questions then quiet work, and so on.
- Give clear time instructions for every task. 'You have five minutes to complete task 1 after which we will...' Give pupils a countdown: 'You've got four minutes, three minutes, two minutes...'
- Include a competitive element to your lesson if it's appropriate.
- Try using fast-paced music. Alistair Smith suggests epic movie soundtracks, such as Star Wars. For the last 30 seconds use TV's Countdown music.
- Set tasks that rely on pupils needing to have their contribution ready to share. They might not mind failing to complete a task if they think someone else in the class will take responsibility for answering. If they know they have to share their personal work with a partner or demonstrate to the class they will, perhaps, feel a greater pressure to complete it.
- Ask an able or willing pupil early in the lesson to collect their findings to present to the class at the end of the lesson.
- If you are taking feedback during the lesson enlist a pupil to record ideas on the board while you lead the discussion.
- Keep end of lesson plenaries short and focused: 'You have two minutes to write down two facts you have learned this lesson', or, 'turn to your neighbour and tell them two reasons for...'

### **Practical tips for improving questioning of 'More Able' pupils in the classroom**

#### **Extending pupils' answers**

Use non-verbal interventions: eye contact, a nod or raised eyebrows to encourage extended responses, to challenge or to express agreement or surprise. Ask questions such as the following: ➤ Can you say a little more about that?

- Why do you think that?
- Does that always apply?
- What are the exceptions?
- Can you explain how/why ?
- Why did you decide to start like that/do it that way/include that...?
- How did you reach that answer/decision ?
- How can you be sure?
- What if...?

- Could you put that another way?
- Who thinks something different?
- Can you justify, give reasons why/evidence for...?
- Can you give an example of...?
- Who can offer a different point of view?
- What might be a more powerful/interesting word to use here?
- Who can argue against...?
- What do you think happens next?
- How does this connect to...
- Who would like to add to or ask a question about what has just been said?

### **Pupils' own questions**

When someone asked Nobel prize winner Isidor Rabi how he became a nuclear physicist, he told the story of his mother, who did not ask the usual questions when he returned home from school, such as 'What did you do?' 'What did you learn today?' Instead, she asked: 'Izzy, did you ask a good question today?' (Fisher, 1995) As able children move through school, they need to pose their own questions as well as answer other people's. Small children, as we know, ask questions all the time, but as they progress through school they tend to be 'talked at' rather than 'talked to' and soon relinquish the role of 'questioner' to teachers and other adults. Beginning a lesson or topic by asking, 'what questions could we ask about this book/person/place - what would you like to know, how many questions can you ask?' encourages able children to use an analytical approach which will become second nature to them in their learning.

### **A case study! Learners asking questions**

How many questions can your pupils come up with when finding out about another country? Here are some questions one mixed class asked about Mexico:

- Where is it? Is it an island or do other places join up to it?
- What are the people like, what language do they speak? Do they speak English?
- Can you go there on holiday? How long does it take? How much does it cost?
- What's the weather like?
- What money do they use?
- Do they grow stuff? Do they make stuff?
- Is it a rich country or poor country?
- Who is in charge? Is there a queen or a president?
- Was it called something else in the olden days?
- Are there any wild animals?
- What sports do they like?
- Does anyone famous live there?

The questions were written out on cards and stuck to the display board so that children could comment on the range and level of interest. The teacher went on to ask if anyone knew about some of the topics before sharing out the questions to groups and pairs to research (maps, books, brochures and internet access were provided). After one lesson and one homework, the findings were reported back. This amounted to a lot of information collected in a very short time and the children were very proud of their work.

They were then asked to come up with some questions which would be harder to answer – and perhaps with no right or wrong answer. The teacher gave an example of 'Is it a good place to live? Why/why not?' with some suggestions of what she was thinking and why. The children generated questions such as:

- How is it different to living in this country? Is it nicer or worse?
- Would we like to go on holiday there? Why, or why not?
- Why are there so many poor people?
- If we had a million pounds to spend what would be the best way to help them?

**Lastly, the London Board for Gifted and Talented compiled this list of academic language which contains the main analytical words they say are needed for success to degree level.**

### **The academic word list (AWL) - head words**

There are 570 head words in total. With associated words this list amounts to 3,000+. The head word may not be the most common occurrence, e.g. finance is the head word, but financial may be the most frequently used.

<p><b>Group 1</b> analyse approach area assess assume authority available benefit concept consist constitute context contract create data define derive distribute economy environment establish estimate evident export factor finance formula function identify income indicate individual interpret involve issue labour legal legislate major method occur percent period policy principle proceed process require research respond role section sector significant similar source specific structure theory vary</p>	<p><b>Group 2</b> achieve acquire administrate affect appropriate aspect assist category chapter commission community complex compute conclude conduct consequent construct consume credit culture design distinct element equate evaluate feature final focus impact injure institute invest item journal maintain normal obtain participate perceive positive potential previous primary purchase range region regulate relevant reside resource restrict secure seek select site strategy survey text tradition transfer</p>
<p><b>Group 3</b> alternative circumstance comment compensate component consent considerable constant constrain contribute convene coordinate core corporate correspond criteria deduce demonstrate document dominate emphasis ensure exclude framework fund illustrate immigrate imply initial instance interact justify layer link locate maximise minor negate outcome partner philosophy physical proportion publish react register rely remove scheme sequence shift specify sufficient task technical technique technology valid volume</p>	<p><b>Group 4</b> access adequate annual apparent approximate attitude attribute civil code commit communicate concentrate confer contrast cycle debate despite dimension domestic emerge error ethnic goal grant hence hypothesis implement implicate impose integrate internal investigate job label mechanism obvious occupy option output overall parallel parameter phase predict principal prior professional project promote regime resolve retain series statistic status stress subsequent sum summary undertake</p>
<p><b>Group 5</b> academy adjust alter amend aware capacity challenge clause compound conflict consult contact decline discrete draft enable energy enforce entity equivalent evolve expand expose</p>	<p><b>Group 6</b> abstract accurate acknowledge aggregate allocate assign attach author bond brief capable cite cooperate discriminate display diverse domain edit</p>

<p>external facilitate fundamental generate generation image liberal licence logic margin medical mental modify monitor network notion objective orient perspective precise prime psychology pursue ratio reject revenue stable style substitute sustain symbol target transit trend version welfare whereas</p>	<p>enhance estate exceed expert explicit federal fee flexible furthermore gender ignorance incentive incidence incorporate index inhibit initiate input instruct intelligence interval lecture migrate minimum ministry motive neutral nevertheless overseas precede presume rational recover reveal scope subsidy tape trace transform transport underlie utilise</p>
<p><b>Group 7</b>  adapt adult advocate aid channel chemical classic comprehensive comprise confirm contrary convert couple decade definite deny differentiate dispose dynamic eliminate empirical equip extract file finite foundation globe grade guarantee hierarchy identical ideology infer innovate insert intervene isolate media mode paradigm phenomenon priority prohibit publication quote release reverse simulate sole somewhat submit successor survive thesis topic transmit ultimate unique visible voluntary</p>	<p><b>Group 8</b>  abandon accompany accumulate ambiguous append appreciate arbitrary automate bias chart clarify commodity complement conform contemporary contradict crucial currency denote detect deviate displace drama eventual exhibit exploit fluctuate guideline highlight implicit induce inevitable infrastructure inspect intense manipulate minimise nuclear offset paragraph plus practitioner predominant prospect radical random reinforce restore revise schedule tense terminate theme thereby</p>
<p><b>Group 9</b>  accommodate analogy anticipate assure attain behalf bulk cease coherent coincide commence compatible concurrent confine controversy converse device devote diminish distort duration erode ethic format found inherent insight integral intermediate manual mature mediate medium military minimal mutual norm overlap passive portion preliminary protocol qualitative refine relax restrain revolution rigid route scenario sphere subordinate supplement suspend team temporary trigger unify violate vision</p>	<p><b>Group 10</b>  adjacent albeit assemble collapse colleague compile conceive convince depress encounter enormous forthcoming incline integrity intrinsic invoke levy likewise nonetheless notwithstanding odd ongoing panel persist pose reluctance so-called straightforward undergo whereby</p>

