Ambition Institute

EARLY CAREER TEACHERS:
MENTOR TRAINING

Conference One | Workbook

KEEP
GETTING
BETTER

Introduction

Welcome to the Early Career Teachers Mentor Training Programme Mentor Conference 1 workbook. This workbook will accompany the facilitated session and help you build on your learning from the orientation.

Mentor Conference 1 – Session Aims

This session is the start of a longer journey of mentor development on the programme, building on your expertise as a teacher and mentor. In this session, you will develop your understanding of:

> The importance of Early Career Teacher (ECT) development

> How the Early Career Framework and Early Career Teachers programme will help support you and your Early Career Teacher

> The principles underpinning Ambition Institute's Early Career Teachers programme

> Your role as mentor within the programme

> The basics of instructional coaching

Today's Session

Section 1: High-quality mentoring and the Early Career Framework

Reflection: mentoring

> Why can mentoring help improve outcomes for all pupils?

> What has been your experience of the impact of mentoring?

> Long-term goal: what do you want to achieve as a mentor?

> Immediate goal: what do you want to get out of today?

The Early Career Framework

What is the Early Career Framework?

The Early Career Framework is based on a combination of the best available research evidence, and expert guidance from teachers, school leaders and academics. It sets out what all new teachers need to know and be able to do in order to have the greatest possible impact on their pupils. The framework forms part of the Department for Education's 'golden thread' of professional development, from initial teacher training to the National Professional Qualifications (NPQs).

> The Early Career Framework covers five core areas of teaching:

  o behaviour management

  o pedagogy

  o curriculum

  o assessment

  o professional behaviours

> The framework provides an entitlement to training; it is not a tool for assessment

> The content reflects the complex nature of teaching – it is designed to be a set of statements to be mastered over time, not standards to be ticked off. For this reason, there is considerable overlap between the Initial Teacher Training Core Content Framework and the Early Career Framework. Teachers will have studied much of the content during training, but they are likely to still be progressing towards mastering the ideas and skills.

What are the wider reforms?

Teaching is as complex as many jobs that have a much longer training period. The framework provides two years of support to newly qualified teachers in recognition of this complexity. By providing Early Career Teachers (ECTs) with an extra 5% non-teaching time in their second year, schools will ensure that time is protected for ECTs to continue receiving the training and support they deserve.

The reforms also provide a clear direction for this training, crucially including the mentoring that ECTs will receive, this reduces the risk of teachers in different places receiving different levels of support. Specifying the number of hours of self-study and mentor support that ECTs are entitled to helps to ensure this consistency. The reforms also prioritise time and space for mentors to develop and reflect on their own practice, including funding time for mentors to attend high-quality training.

Do mentors need to know the Early Career Framework by heart

While mentors need to be aware of what Early Career Teachers are entitled to as a result of the Early Career Framework, Ambition Institute's Early Career Teachers' Programme will provide you with an in-depth understanding of the framework and statements as these are all covered as part of the programme. Whilst mentors may be interested in using the framework to further their understanding, for example. by reading some of the papers referenced within the framework, mentors do not need to memorise the statements in the framework.

Although the framework sets out the content that ECTs are entitled to, it is not a curriculum. Ambition Institute's programme sequences the content so that it builds carefully over time, helping you as mentors to work with ECTs to build knowledge and expertise. The Early Career Framework is a framework setting the evidence base of what teachers need to learn, whereas the Early Career Teachers programme sets the progression through the content – what ECTs should learn, in what order, and guidance on how they might do so.

It is important to emphasise that the programme is there for you to adapt to the needs of your teacher. To provide stretch and challenge or additional support, exactly as you do with pupils every day when adapting the content that they need to learn.

The ECF Learn that… and learn how to…

Below are three 'learn that' and three 'learn how to' statements taken from the 'Subject and Curriculum' section of the Early Career Framework. Choose one 'learn that' and one 'learn how to' statement and think about:

A) What a surface level understanding of that statement might involve (including what it might look like in classroom practice)

B) What a teacher with an expert knowledge and understanding of that statement might do in their classroom

Learn that:

> Anticipating common misconceptions within particular subjects is also an important aspect of curricular knowledge; working closely with colleagues to develop an understanding of likely misconceptions is valuable.
> In all subject areas, pupils learn new ideas by linking those ideas to existing knowledge, organising this knowledge into increasingly complex mental models (or "schemata"); carefully sequencing teaching to facilitate this process is important.
> Pupils are likely to struggle to transfer what has been learnt in one discipline to a new or unfamiliar context.

Learn how to:

> **Deliver a carefully sequenced and coherent curriculum, by:**
> Identifying essential concepts, knowledge, skills and principles of the subject and providing opportunity for all pupils to learn and master these critical components.
> **Support pupils to build increasingly complex mental models, by:**
> Drawing explicit links between new content and the core concepts and principles in the subject.
> **Help pupils apply knowledge and skills to other contexts, by:**
> Interleaving concrete and abstract examples, slowly withdrawing concrete examples and drawing attention to the underlying structure of problems.

Programme principles

Key learning broken down into small, manageable chunks
Teaching is a complex activity, with lots of interacting components. This makes for a steep learning curve. However, breaking down knowledge and skills into small, manageable chunks means that more novice teachers are more likely to be able to understand and process new ideas without overwhelming working memory (Sweller, 1988). This allows new knowledge to be integrated into long-term memory, building their mental models by linking to what they already know.

On the programme, this can be seen in the way in which the termly strands have been broken down into 12 sections, and in the focus on practising and embedding one bite-sized step per week.

Underlying features
Each example provided in the programme materials, will have underlying features which may be referred to as key ideas(self-study), underlying features (clinics/conferences/stretch) or success criteria (steps). These are the fundamental elements that underpin the concept and will remain the same, no matter what context this learning is put into. For example, if we look at the concept of delivering instructions, an underlying feature will be that the instructions are manageable and sequential – this would be the same if delivering instructions to an early years class or an A-level Psychology class.

Clear modelling of effective practice
Expert teachers have well-developed mental models of what things should look like in the classroom. This ranges from how the pupils should enter the classroom to what an explanation of a complex idea should look like. More novice teachers benefit from being shown what effective practice looks like, including having this broken down and explained (Deans for Impact, 2018).

Each module includes video examples of what the techniques described look like. Live modelling by you as the mentor is a key element of each instructional coaching session for example, demonstrating how a teacher might pause before selecting a pupil to answer a question.

Multiple opportunities to return to key learning
Like anyone else, new teachers are very unlikely to remember and embed new ideas and skills into their practice from one exposure to new information. Therefore, it is critical that key concepts and ideas are revisited over time, viewing them through a new lens as a teacher's practice develops (Pashler et al, 2007).

For example, teachers might consider the importance of clear instructions as part of classroom management during the Behaviour strand, returning to this idea from the lens of providing clear models and examples during the Instruction strand.

Practice and feedback
Practice with regular, focused feedback as part of instructional coaching is vital in helping teachers put their new learning into practice. Opportunities to isolate skills, practise them in a safe environment and receive feedback before transferring them into the classroom have been shown to have a significant and positive impact on teachers' practice, particularly teachers who are new to the profession (Allen and Sims, 2018).

Contextualised
Expertise is context specific. Only you as mentors will have the expertise on your school context and on your early career teacher's needs. This means that a core element of your role as a mentor is to adapt this to your own setting – you are the person with the greatest expertise of this setting. For example, the video model of breaking down teacher exposition might be from an early years setting and you might teach key stage 5. Your job is to take the example and your own understanding of your context to provide a model of good in your setting. This is similar to a teacher using an externally produced resource – no matter how good this is it will need adapting to their own context, whether through the explanation beforehand or adjusting the content.
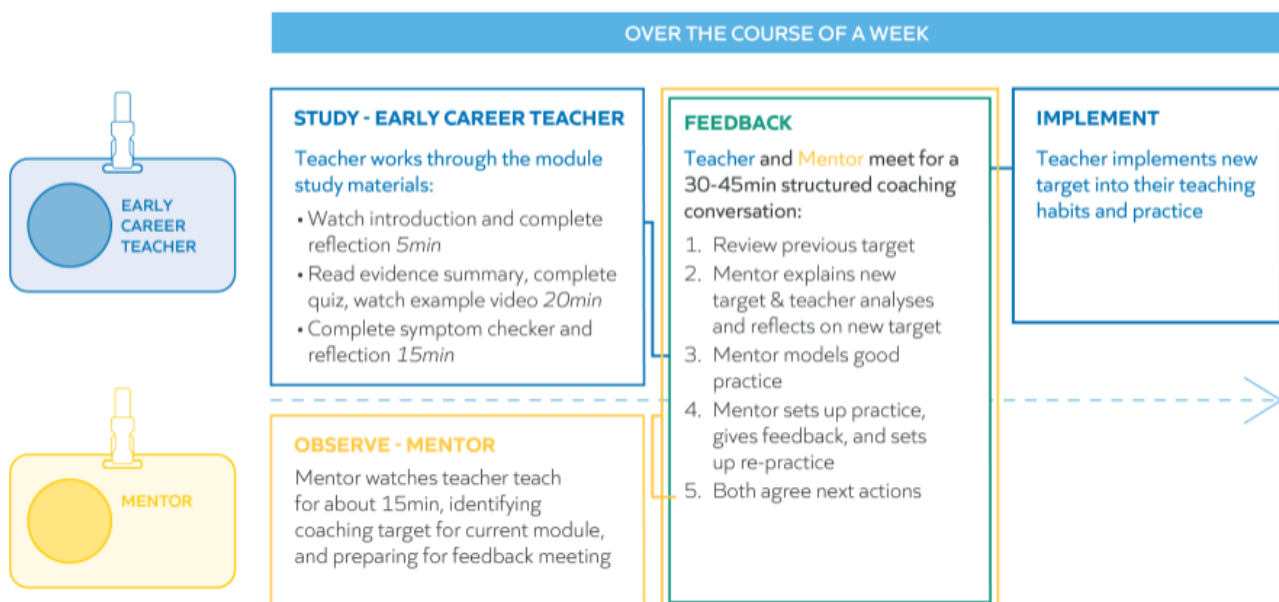
Familiar routines

The life of an early career teacher is intense. To ensure this programme doesn't add unnecessary complexity, we have designed the programme around a set of simple, repeating professional development patterns. This means everyone can spend less time thinking about the process and more time thinking about great teaching.

For example, the format of the instructional coaching session is the same every week: mentors will work with early career teachers to review their previous step, before modelling the next step and supporting the teacher to practise

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Notes:

A Typical Week

OVER THE COURSE OF A WEEK

EARLY CAREER TEACHER

MENTOR

STUDY - EARLY CAREER TEACHER

Teacher works through the module study materials:

- Watch introduction and complete reflection *5min*
- Read evidence summary, complete quiz, watch example video *20min*
- Complete symptom checker and reflection *15min*

OBSERVE - MENTOR

Mentor watches teacher teach for about 15min, identifying coaching target for current module, and preparing for feedback meeting

FEEDBACK

Teacher and Mentor meet for a 30-45min structured coaching conversation:

1. Review previous target
2. Mentor explains new target & teacher analyses and reflects on new target
3. Mentor models good practice
4. Mentor sets up practice, gives feedback, and sets up re-practice
5. Both agree next actions

IMPLEMENT

Teacher implements new target into their teaching habits and practice

ECT Programme Overview Year 1

YEAR 1 CURRICULUM OVERVIEW

TERM 1	TERM 2	TERM 3
STRAND 1 BEHAVIOUR	STRAND 2 INSTRUCTION	STRAND 3 SUBJECT

Weekly self-study (online content)

Instructional Coaching from the Mentor

Facilitated Sessions: Conferences and Clinics

ECT Programme Overview Year 2

YEAR 2 CURRICULUM OVERVIEW

TERM 1	TERM 2	TERM 3
• Complete outstanding year 1 self-study modules • Complete Year 2 Diagnostic Quiz • Create self-study action plan with mentor	• Revisit Year 1 self-study content to strengthen knowledge and practise • Complete further reading suggested by Year 2 Diagnostic Quiz and/or your mentor • Complete Stretch content suggested by Year 2 Diagnostic Quiz and/or your mentor	

Fortnightly self-study (online content)

Fortnightly instructional coaching from mentor

Facilitated Sessions: Conference and Clinics

Roles and support

Make a note of your delivery partner below:

_____

Person	Role
Early Career Teacher	Engage with self-study materials Practise and embed steps into their teaching
Mentor	Build and maintain a strong relationship Lead weekly instructional coaching sessions Monitor engagement with self-study materials Contextualise the resources Promote good habits
Induction tutor	Support mentors and Early Career Teachers Advocate for the programme Additional training (if needed) Main point of contact for delivery partner Often responsible for assessment
Delivery partner	Implement the programme across multiple schools Facilitate clinics and conferences Provide administrative support
Ambition Institute	Design the programme and training materials
Steplab	Online platform hosting the materials Scaffolds coaching sessions

Role of the mentor

> Leads the development of a teacher or number of teachers on the Early Career Teachers Programme
> Uses Steplab to deliver weekly instructional coaching sessions
> Responsible for their teacher(s) engaging with the programme and developing mastery of the content from the Early Career Framework
> Adapts Ambition Institute's resources to their context
> **NOT** responsible for assessment against the Teachers' Standards as part of the ECT's induction.
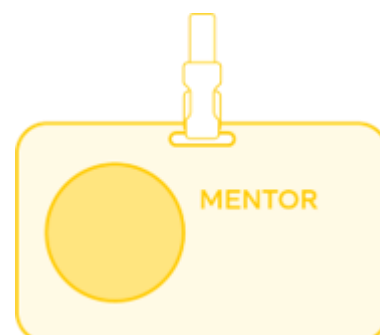
Mentor training programme
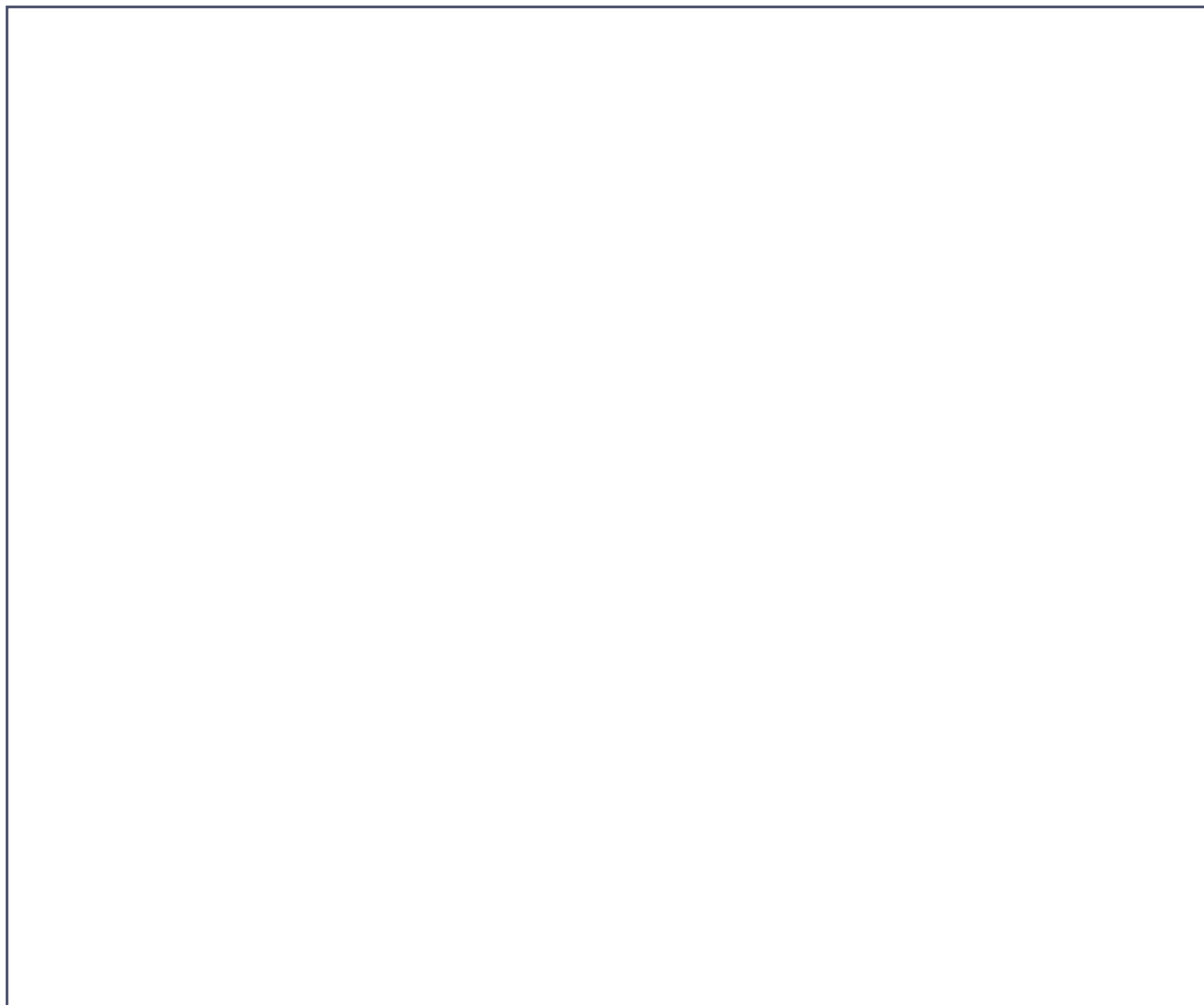
AMBITION INSTITUTE MENTOR PROGRAMME 23_25	YEAR 1			YEAR 2		
	AUTUMN	SPRING	SUMMER	AUTUMN	SPRING	SUMMER
Facilitated content (face to face or online)	Conference 1 1 day	Clinic 90 minutes	Conference 2 1 day	Clinic 90 minutes		
		Coaching for Mentors (optional)				
Online content	Year 1 Orientation 1 hour	Mentoring and coaching development area (optional)		Year 2 Orientation 45 min	Mentoring and coaching development area (optional)	
Instructional coaching	Weekly instructional coaching of an ECT with access to video models, evidence summary and instructional coaching scaffolds and steps 36 hours (1 hour per week)			Fortnightly instructional coaching of an ECT with access to video models, evidence summary and instructional coaching scaffolds and steps 18 hours (1 hour per fortnight)		

Check for Understanding

1. Which of the following statements about the role of the mentor is true?
   a) The mentor is responsible for observing the ECT each week
   b) The mentor is responsible for assessing the ECT against the Framework
   c) The mentor does an instructional coaching cycle each week with the ECT
   d) The mentor needs to complete same self-study as the ECT

Optional Reflection

> What are you excited about in introducing the framework to your teacher(s)?

> What might be challenging about the framework?

> How can the framework be an opportunity for you to develop your practice as a mentor?

Section 2: Developing teacher expertise and the knowing-doing gap

Simple Memory Model
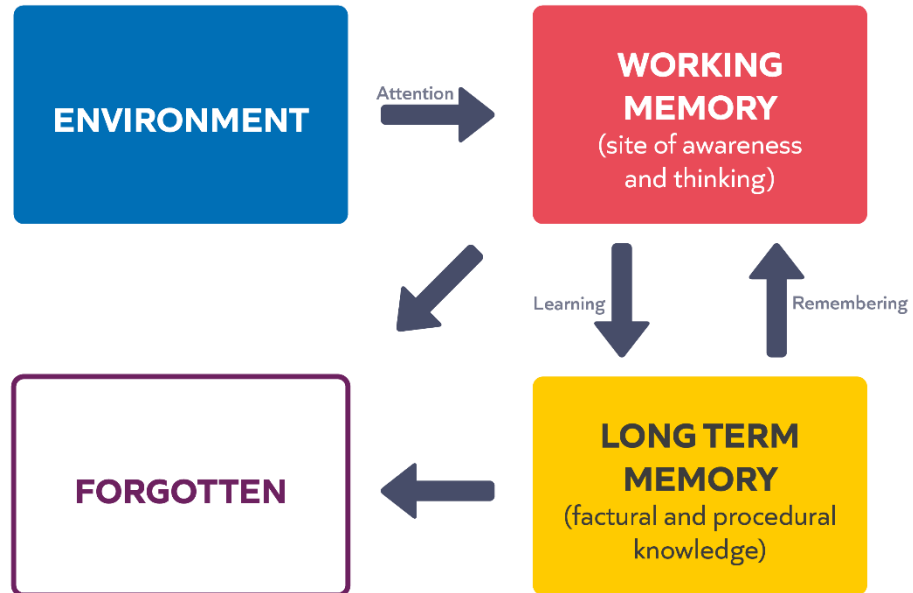
(Willingham, 2009)

What is teacher expertise?

"Knowledge guides action which influences impact."
Mccrea (2018)

Mental models, what people know and how this knowledge is organised in long-term memory, form the foundation on which teacher practice and therefore teacher impact is based.

Therefore, the first consideration of CPD should be what do the teachers need to know in order to make a change to their practice? The Early Career Framework provides the 'what' teachers need to know for the programme.
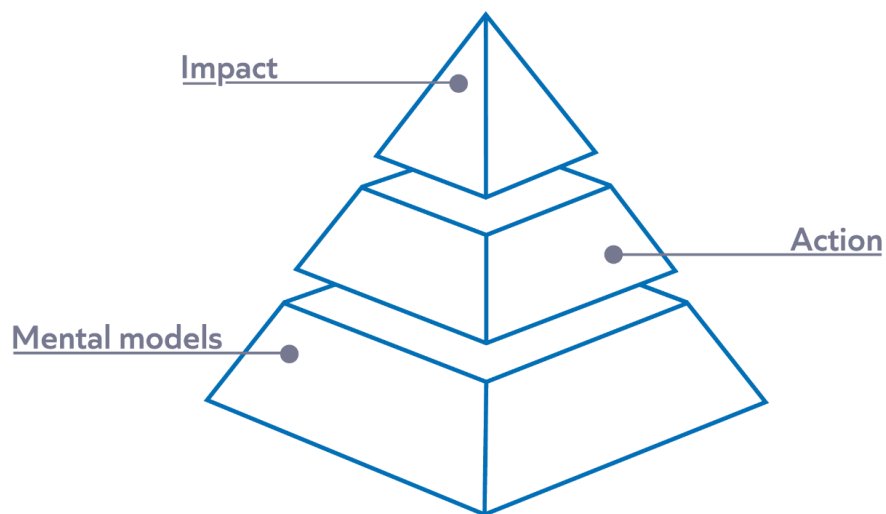
However, as more novice teachers less well-developed mental models, their working memories are easily overwhelmed with new information. It also means that they are less likely to be able to process and remember new information. It is therefore critical that for any training aimed at novice teachers to have the desired impact, it must be designed in a way that is not going to overload their working memory. The principles we have already looked at underpin the design decisions we make, to ensure that knowledge is built gradually.

Mental Models

> The knowledge you have and how that knowledge is organised

> Novices' and experts' mental models differ

> Novices and experts learn differently

> Expertise is domain specific

> We learn new ideas by linking those ideas to existing knowledge and organising this knowledge into increasingly complex mental models

Check for understanding

1. Mental models are:

   A) The knowledge stored in long-term memory

   B) How the knowledge in long-term memory is organised and used

   C) How people visualise situations

2. Which of these statements about novices and experts are true?

   A) Experts' mental models contain more knowledge

   B) Early career teachers are novices

   C) Expertise is generalisable

   D) More novice and more expert teachers both learn best by solving problems

3. Describe the relationship between working memory and long-term memory.

Using the programme to close the 'knowing-doing' gap
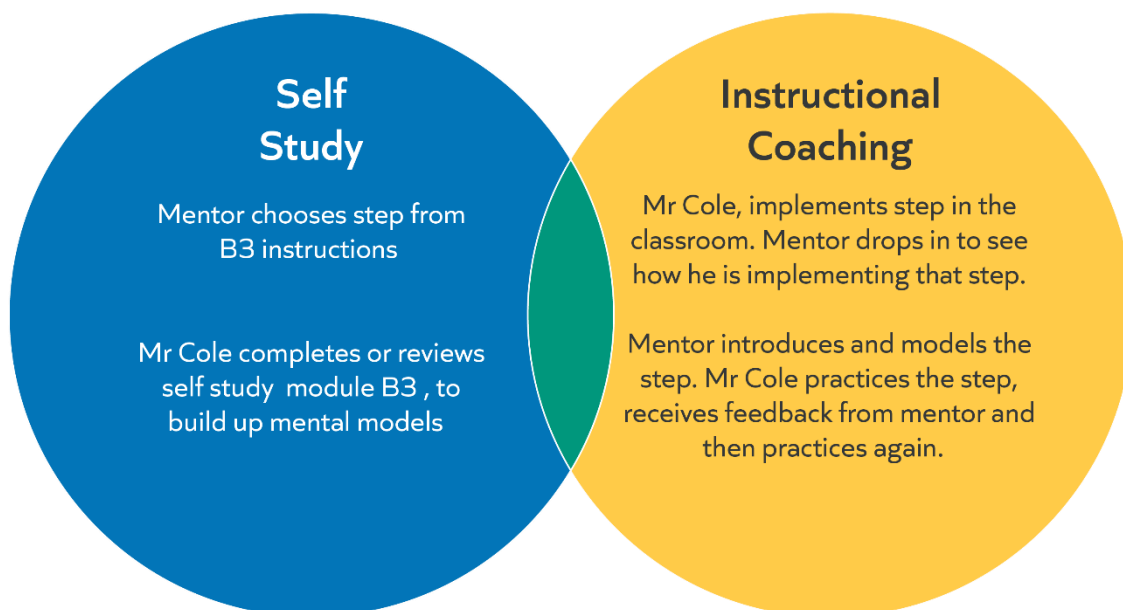
Behaviour Strand Module B3: Instructions

Task

Read the study module.

The placement of video inputs are indicated in the sequence below. You will watch these after reading the module.

Introductory video

Reflection

Recall what you know about instructions from your ITT year or wider classroom experience. You can add your reflections here or in the 'Behaviour Strand Accompanying Workbook'. This section is for your personal reflection, but you may want to share it with your mentor in your coaching conversation. Please note: the accompanying workbook may take a short time to download.

1. Why do you think teacher expectations of pupils' behaviour matters?

2. Why do you think it is important for teachers to give clear instructions?

3. What do you think are the features of effective instructions and why?

Evidence summary

Teaching challenge

For Ms Silva, the most challenging pupil behaviour occurs during 'transition' parts of her lessons - for example, when she moves from giving an exposition to asking her pupils to do some independent work. At these times they often take a while to settle, and sometimes even do the wrong things. She also finds herself having to repeat her instructions multiple times which can take up valuable learning time. How can Ms Silva best manage these transitions to help her pupils get on with their learning quickly and independently?

Key idea

Setting high expectations and providing clear instructions are powerful ways to foster good behaviour and create an effective learning environment.

Teacher expectations matter

Setting and communicating clear expectations has a strong influence on pupil behaviour (Murdock-Perreira & Sedlacek, 2018). For example, conveying low expectations can generate a 'self-fulfilling prophecy' where pupils end up behaving according to the expectations we have set, rather than what they are capable of (Tsiplakides & Keramida, 2010). Sometimes teachers can communicate low expectations without realising. This can happen when we ask certain pupils more questions than others, or when we permit pupils to call out when they shouldn't. To mitigate this, Ms Silva should be intentional about holding and communicating high expectations for her pupils. This means:

- Continually assuming that all her pupils are capable of behaving well and making progress in their learning.

- Relentlessly communicating to pupils that she knows they are capable and that she expects nothing less than exemplary behaviour and learning from them.

- Regularly providing clarity to her class about the kind of classroom culture that she values.

Clear instructions can make a huge difference

Giving instructions is a great opportunity to embed high expectations into your lesson. Delivering instructions effectively can help make lesson transitions go smoothly and foster a purposeful and effective learning environment (IES, 2008). Effective instructions can reduce challenging behaviour, reinforce desirable behaviour, and make the classroom more structured and predictable for pupils (Kern & Clemens, 2007). For example, directing pupils to sit in a seating plan and giving them clear instructions for how to begin the starter activity increases the chances of an orderly entrance and successful start to the lesson.

Instructions are powerful because they act as a reference point that pupils use as a guide for what to do and how to do it. However, giving effective instructions is not always easy to do well. In particular, there are two features of how pupils think that can thwart our efforts:

1. Limited working memory: People can only think about so many things at once. If we give our pupils too many instructions to hold in their heads, it is likely that they will be unable to retain any of them.

2. Forgetting: People forget things. This is especially true when instructions are overly lengthy or for unfamiliar classroom activities (Gathercole et al., 2006).

Both of these situations are exacerbated by the mental demands of the classroom. During our lessons, we often ask pupils to both hold instructions in their heads and think hard about lesson content - for example, when we expect pupils to remember our instructions for conducting a paired discussion while also considering complex questions about Caesar's invasion of Britain. To make it feasible for our pupils to meet high expectations, we must make sure

our instructions are easy to understand and put into practice.

Issuing effective instructions

Bearing in mind the above features of how pupils think, classroom instructions are likely to be more effective when they are:

Stepped: The best instructions are broken down into a clear sequence of manageable steps (Gathercole et al., 2006).

Brief: They include as few steps as possible and get straight to the point, especially when giving instructions for new or unfamiliar activities. If you are struggling to achieve a low number of steps, it may be worth looking at making the task itself less complex.

Visible: Displaying instructions in addition to communicating them verbally means that pupils won't have to remember them while also thinking about the lesson content.

Checked: Pupils can easily misunderstand initial instructions. Checking that pupils have understood the steps before letting them get on with the task can increase the chances that they do the right thing (Rosenshine, 2012). This also increases the chances of them remembering the instructions.

Supported: Consistent language and non-verbal actions for common classroom directions also make them more likely to be memorable.

Nuances and caveats

It is important to think about how we communicate instructions. Timing, tone of voice and how we model instructions can all make a difference to how well they are taken on board. Providing clear instructions is beneficial to all pupils but it can be especially important for younger pupils, those with Special Educational Needs and those with lower working memory capacity (Gathercole et al., 2006).

Key takeaways

Ms Silva can improve pupil behaviour and learning by understanding that:

- Holding and communicating high teacher expectations can improve pupil behaviour.

- Effective instructions can both prevent problems occurring and reinforce desired behaviours.

- Delivering effective instructions involves a concise 'what' and a clear 'how'.

- Checking that pupils understand instructions before letting them start increases the chances of success.

Further reading

   Gathercole, S., (2008) Working memory in the classroom, The Psychologist. bit.ly/ecf-gat

References

- *Gathercole, S., Lamont, E., & Alloway, T. (2006). Working memory in the classroom. Working memory and education, 219-240.*
- *IES (2008). Reducing Behavior Problems in the Elementary School Classroom. bit.ly/ecf-ies*
- *Kern, L., & Clemens, N. H. (2007). Antecedent strategies to promote appropriate classroom behavior. Psychology in Schools, 44, 65–75.*
- *Murdock-Perriera, L. A., & Sedlacek, Q. C. (2018). Questioning Pygmalion in the twenty-first century: the formation, transmission, and attributional influence of teacher expectancies. Social Psychology of Education, 21(3), 691–707.*
- *Rosenshine, B. (2012). Principles of Instruction: Research-based strategies that all teachers should know. American Educator, 12–20. Bit.ly/ecf-ros*
- *Tsiplakides, I. & Keramida, A. (2010). The relationship between teacher expectations and student achievement in the teaching of English as a foreign language. English Language Teaching, 3(2), 22-26. Bit.ly/ecf-tsi*

Two further examples of study modules can be found on in the appendix on page 52 of the workbook. If you have

additional time, please do read these.

Quiz

1. What do teachers need to keep in mind when giving instructions?

a. Long term memory is limited, so teachers should avoid drawing on prior knowledge.

b. Forgetting is inevitable, especially when instructions are long, complex or unfamiliar.

c. Working memory is limited, so pupils will be unable to retain too many instructions.

d. The classroom environment is demanding, which can affect how much pupils retain.

(Correct answers: b, c, d)

2. Classroom instructions are likely to be more effective when they:

a. Are limited and straight to the point to avoid cognitive load.

b. Are verbal, so pupils remember them when thinking about the lesson content.

c. Are broken down into a clear sequence of steps, to make them manageable.

d. Are checked to identify what pupils can remember of have misunderstood.

(Correct answers: a, c, d)

3. Which pupils are effective instructions helpful for?

a. Pupils in primary or early years settings.

b. Pupils in alternative provision settings.

c. Pupils with a lower working memory capacity.

d. Pupils in secondary or further education settings.

e. Pupils with special educational needs.

(Correct answers: all)

Example (video)

Watch and consider what the knowledge in this module may look like in practice. The key ideas within the example

are relevant to all settings and phases.

After you have watched the above video, you may want to engage with a further example.

The following written example is designed to show the key ideas of this module in a specialist setting for pupils with special educational needs and disabilities (SEND). This is an optional part of the module, and will take approximately ten minutes to work through. It has a number of benefits:

To support you to see what effective practice may look like in this setting and when working with pupils with SEND.

To support you to identify the common features of effective practice within this module, in comparison to the video example above.

Mr Martin is confident that his spoken instructions are clear, specific, broken down into a clear sequence and delivered using an appropriate tone of voice. Despite this, he has noticed that the pupils in his class are quick to forget given instructions to a set task. Consequently, pupils seem to swiftly disengage in the work set and lose focus, affecting the whole class environment.

Mr Martin decides to observe a similar class. During his observation, he notices the supporting adults signing using Makaton. As the adults give instructions, they use visuals and symbol instructions to guide and repeat expectations alongside minimal language which relay these expectations. He also notices a pupil following a step-by-step visual instruction strip on how to resource and set up a science experiment, which positively impacts the pupil's independence and engagement throughout the lesson.

After the lesson, Mr Martin reflects on this observation with his mentor. He recognises that, in comparison, he has been communicating his instructions by speech alone. His mentor agrees, and reminds Mr Martin that some pupils perhaps do not have the working memory capacity to remember his given instructions. Consequently, it is important to provide additional support through repetition and visual cues. Together, they decide that, over the next week, Mr Martin will focus on his instructions, specifically repeating them and supporting them with simple, visual, step-by-step instructions. They use the rest of the mentor meeting to identify and practise delivering some common lesson instructions with accompanying Makaton signing. At the end of the session, his mentor also prompts him to consider that he also needs to think beyond his practice; he needs to be clear about these changes with his support sta- too, as they will convey instructions as much as he does within a lesson. Clear, concise, repeated instructions with visual cues are likely to be key to ensure consistency across the class team while he is teaching.

The following week, his mentor suggests observing some colleagues who teach pupils with high sensory and communication needs to get a more comprehensive understanding of the visual supports that might be used to support pupils with a range of needs. From this, Mr Martin identifies some further practical approaches he might use to support pupils in his class, such as objects of reference, musical cues and hands-on signing. In the following mentoring meeting, his mentor supports Mr Martin to plan and practise giving an instruction using an object of reference.

By ensuring his classroom is a whole communication environment, where spoken language is supported by visuals, signing and objects of reference, Mr Martin is able to communicate his high expectations across his lessons through clear, consistent simple instructions which are repeated and differentiated to support pupils' engagement, independence and progress. Over the following few weeks, Mr Martin's mentor comments on

the development of Mr Martin's practice. This is having a positive impact on pupils, who appear more

focused on tasks in lessons

Symptom checker

Consider your own classroom and identify areas where you might want to develop your practice further. Select the scenario(s) which are closest to what you see in your classroom. If none of the scenarios fit, you can summarise any other visible symptoms you are seeing in the box provided, considering what you have studied in this module. This section is for your personal reflection, but you may want to share these reflections with your mentor in your upcoming coaching conversation.

Symptom	Feedback
I've noticed that pupils don't always seem to pay attention to instructions. It can happen when pupils are focused on a task or activity, or when pupils are distracted and unfocused. In both instances, I feel that pupils don't recognise that what I am saying is important, and that they need to listen carefully. In some cases, it appears as though pupils haven't noticed that I've given an instruction at all.	If this description fits what you are currently seeing in your classroom(s), you might want to consider talking to your mentor about presence through posture and voice.
I've noticed that pupils don't seem to remember instructions when they try to enact them. Once I've given instructions, pupils can miss out steps or do them in the wrong order. Some pupils ask me to repeat instructions or ask me what they need to do next. It appears they are struggling to remember all of the parts of the instruction, and the order they should carry them out in.	If this description fits what you are currently seeing in your classroom(s), you might want to consider talking to your mentor about delivering clear instructions.
I've noticed that pupils don't seem to remember instructions even before they try to enact them. Once I've given instructions, I ask pupils to repeat these back. Pupils can repeat back some of these instructions, but struggle to remember all of them, or they explain them in the wrong order. It appears pupils are struggling to hold all of the instructions in their head at once.	If this description fits what you are currently seeing in your classroom(s), you might want to consider talking to your mentor about delivering clear instructions.
I've noticed that pupils don't seem to fully understand instructions and find them difficult to put into practice. Once I've given instructions, it can get a bit disorderly as pupils do different things, ask each other what they should be doing, ask me to repeat the instructions, or even follow instructions that I've given in a previous lesson. It appears pupils are not completely clear on what they need to do.	If this description fits what you are currently seeing in your classroom(s), you might want to consider talking to your mentor about delivering clear instructions.

Reflection

Reflect on your key takeaways, your developing knowledge and practice, and your next steps. You can add your reflections here or in the 'Behaviour Strand Accompanying Workbook'. This section is for your personal reflection, but you may want to share it with your mentor in your coaching conversation.

1. What did you see in this module that you already do or have seen in other classrooms?

2. What are your key takeaways from this module?

3. Considering your key takeaways and feedback from the symptom checker, what next steps might you discuss with your mentor so that you can apply the ideas from this module to your teaching?

Enter response here

END OF SELF-STUDY

Task

Consider the components you have just read and watched from Behaviour 3: Instructions.

How does the structure of the structure of the module support ECTs to consolidate and develop their knowledge of delivering effective instructions?

What three learning points would you want your ECT to take away after engaging with this module?

Section 3: Introducing the instructional coaching cycle

The instructional coaching cycle
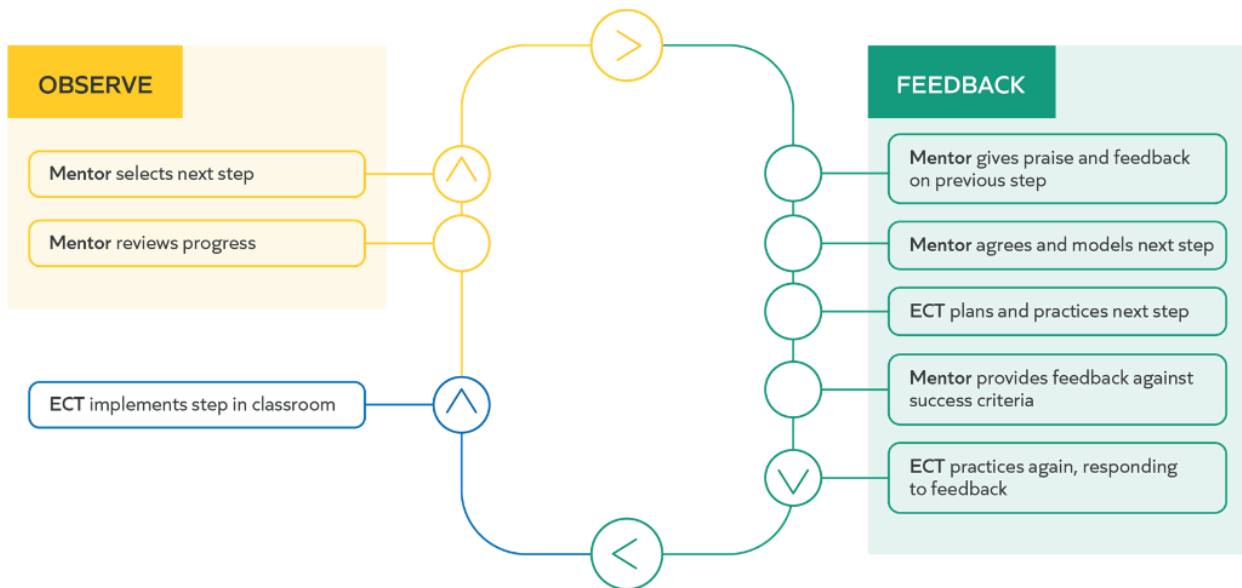
Instructional coaching

An observation and feedback cycle in which instructional experts work with teachers to discuss their practice in a way that is:

a. Individualised

b. Recurring

c. Sustained

d. Classroom/practice-based

e. Focused on specific skills

What is Instructional coaching

In this guide, instructional coach and Ambition Fellow Steve Farndon gives an introduction as to what instructional coaching is, why it's different to the coaching you've seen before, and how it can have an enormous impact.

In terms of impact on student outcomes, instructional coaching has a better evidence base than any other form of CPD.

The principles of instructional coaching are linked to the principles of developing expertise in any domain through the use of deliberate practice. The first step is to identify a destination or outcome, often called the *target performance*.

Teachers can move from their current performance towards this target performance by practising a sequence of sub-goals with the aid of a coach. This allows them to overcome existing ingrained habits and adopt new behaviours. The input of the coach is in observing the practitioner's current performance, setting precise sub-goals and designing practice.

This is in sharp contrast with current practice in many schools, where observations are largely about judging the effectiveness of a teacher.

Where feedback is given it is often highly generic, specifying what needs to change but not how the change can happen. Feedback like 'You need to improve your questioning' is equivalent to a footballer being told 'You need to score more goals' or a surgeon being told 'You need to heal more patients'!

Instructional coaching is also in contrast to a more traditional coaching model where the coach asks a series of open questions in order to draw out the answer that the practitioner is already aware of. Instructional coaching assumes that there are some areas where the teacher being coached is more novice and that the coach, being more expert, will be able to guide their improvement in those areas.

This doesn't only apply to new teachers – all teachers have areas in which they can improve, and the most efficient way of doing this is to undergo direct, explicit instruction.

We can draw a parallel here with other performance professions: these are jobs which involve significant preparatory work and planning but in which the final outcome is determined to a greater extent by a high stakes final performance – such as acting, surgery, sport or law.

In these cases, coaching looks quite different from the current dominant model in teaching, in these cases coaches:

1. identify, and clearly define, the target performance
2. identify the biggest gap between target and current performance
3. break this down into components which can be practised
4. design practice
5. facilitate practice in controlled conditions
6. give feedback and increase complexity of practice

It might be that a footballer knows that they want to score more goals, but, in the heat of a game, they struggle to work out what is holding them back.

A skilled coach will identify an area which can be worked on – a better first touch when receiving the ball in the final third of the pitch for example. They would then break this down into an element that can be practised: improving weight distribution to give better balance when receiving the ball.

This is then translated into drills that build up in complexity – practising whilst static, then whilst moving, then in a practice game, then in a real game – all whilst receiving corrective feedback. In doing so the footballer tackles a previous weakness in manageable steps and embeds it.

Instructional coaching of teachers seeks to fulfil a similar function: coaches observe lessons and select the area which they think will most improve the teacher's practice. They then identify how the teacher can improve in this area, creating manageable, bite-sized steps for improvement.

Vitally, they design practice for teachers and give them feedback in controlled conditions before the teacher

attempts the new technique in their classroom, helping them to overcome their existing classroom habits.

One example of this process might be a teacher whose students struggle to link prior and new learning and see the relevance of lesson activities. A coach may diagnose this as being an issue with the teacher's lesson introductions which are over-long and unfocused. The coach would set a next step of scripting out a lesson introduction that links past, current and future learning, offering a model example and getting the teacher to practise this particular aspect of their delivery with feedback.

These bite-sized steps might seem relatively minor, and unlikely to improve student outcomes, however instructional coaching sessions usually form part of a longer trajectory of improvement. For example, a coach may work on the design and implementation of retrieval practice with a teacher whose students are struggling to recall key information over time.

By taking a long-term, incremental approach to improvement, teachers are supported to make sustainable changes to their classroom practice, whilst simultaneously developing the mental models needed to use these new techniques appropriately. This is what makes instructional coaching such a powerful form of professional development.

Successful instructional coaching requires a number of features:

1. teachers must be invested in the process
2. coaches must possess strong inter-personal skills to develop relationships of trust
3. coaches need to be disciplined in terms of setting bite-sized steps for improvement and getting their teachers to practise these

More important than all of these, however, is the expertise of the coach.

In a similar way as coaches in other performance professions, this doesn't necessarily mean that they need to be expert practitioners of the craft, however they do need to have a broad knowledge of teaching that is declarative rather than tacit i.e. they know what is done, why it is done and how it is done.

Instructional coaching has the impact that it does because of its specificity and incremental nature. It also acknowledges that teachers need high levels of support to adopt new habits in the complex environments of their classrooms.

Space for notes

The principles of deliberate practice

THE FIVE PRINCIPLES OF DELIBERATE PRACTICE

| Push beyond one's comfort zone | Work toward well-defined, specific goals | Focus intently on practice activities | Recieve and respond to high-quality feedback | Develop a mental model of expertise |
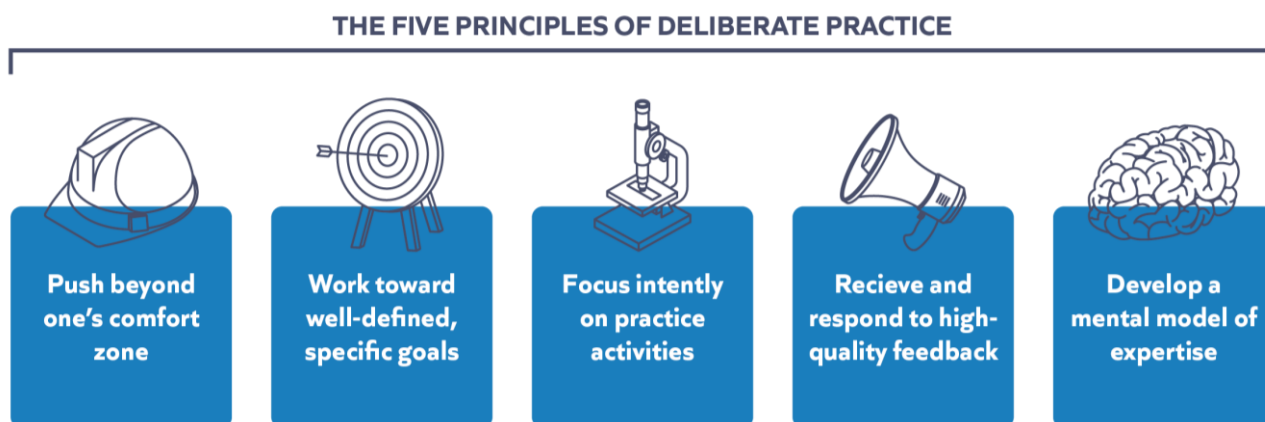
For more information read Deans For Impact, Practice with Purpose

(https://deansforimpact.org/resources/practice-with-purpose/)

Reflection

> How does the way novices learn have implications for how we support early career teachers?

> Does this differ from the way in which you were supported in your early career or in the way you have supported others? If so, how?

Section 4: Practising instructional coaching

Case Study 1

Vicky is in the second month of her 1st year of induction. She has made a positive start but is struggling with some low-level disruption in her classroom. During September, Tania (her mentor) met with Vicky to set out the ways that they will work together, including how and why they will use instructional coaching to improve her practice. Tania also dropped into her lessons informally to see how she was progressing.

Last week, Tania observed Vicky and, based on what she saw in the classroom and on the self-study Vicky has engaged with so far, focussed the instructional coaching on B2 – Routines. Vicky had some good classroom routines in place, including welcoming pupils into the classroom, routines to support pupils move around the classroom and handing out resources. However, Tania noticed that while she had a routine in place for what pupils should be doing during the starter activity, she did not ensure that pupils were aware that she was looking to see if they were meeting her expectations, and therefore this became the focus of her step and instructional coaching session.

In the instructional coaching session following the lesson, Tania and Vicky worked on the step "actively show that you are scanning and monitoring the pupils during the starter activity". Tania demonstrated what this step would look in Vicky's class, with her pupils, and then supported Vicky to practise doing the same skill, providing feedback to help her improve.

Tania and Vicky agreed that Tania would come and watch the beginning of Vicky's lesson on Tuesday afternoon so that she could see the step in action.

During this week's observation Tania will be looking at how Vicky is getting on with the last step, whilst also thinking about whether to continue to focus on routines (whether the same step or a related one), or to move onto a different area of the behaviour strand.

Here are the success criteria for the last step. Tania will use these to guide her during the lesson observation.

> Body language is in a formal register
> You are positioned so that every pupil can see you
> You scan the room to check all pupils
> You include non-verbal gestures to reinforce monitoring

Mentor reviews progress

What
Mentor in ECT's lesson to look for progress on last step set
This step observation and the timing has been agreed between ECT and mentor

When
10 – 15 minutes per week

How
Mentor can use laptop and takes notes into Steplab

Underlying features of 'reviews progress'

Developmental: The mentor ensures that the ECT is clear that the observation is developmental.

Agreed: The mentor and the ECT have agreed the timing and focus of the observation.

Use of success criteria: The mentor uses the success criteria from Steplab to assess progress and write specific and concrete feedback.

Task
Watch the video of Tania talking about her observation of Vicky.

Questions to consider
How has did Tania decide if the step had been met?
How did she write notes?
Stretch: How does specific feedback help Vicky's development?

Standing where you can see both into and out of the room, greet pupils and make it obvious you are checking on their behaviour as they enter and in the classroom. Positively reinforce the behaviours you want to see.

1. *Visible: teacher is standing where they can have a clear line of sight both outside and inside the classroom*
2. *Positive whole class greeting and instruction: "Good morning year 6. Walk to your desks, reading books out and start reading silently"*
3. *Frequent: teacher looks inside the classroom frequently, so pupils are not left unchecked for sustained periods*
4. *Comprehensive: teacher is looking across the whole room when they lean into the classroom*
5. *Exaggerated: teacher makes it obvious they are checking pupils by leaning into and out of the classroom and exaggerating their body language, e.g., by standing on their tip toes, craning their next and using their arm to track their line of vision.*
6. *Seek and reinforce the positive: teacher looks for the positive behaviours some pupils are doing, and others need to start doing and reinforces them e.g., "Pippa is writing the title" NOT "Some of your*

Task

Read the lesson observation notes that Priska's mentor has made.
How could these notes be improved? Rescript the notes. (You will need to imagine the classroom.)

Priska's mentor's lesson observation notes

Well done, you made your presence felt in the classroom and monitored the pupils well. As a result, they stayed on task and there was a calm start to the lesson.

You reinforced positive behaviours, without being excessive. Your tone was clear confident and positive.

Step

> **Behaviour Directing Attention**
> **Pre-emptively reinforce the positive actions you see pupils taking to encourage everyone to stay focused at key points in the lesson when you anticipate pupils may struggle**
> - o *Seek and reinforce the positive: teacher looks for the positive behaviours some pupils are doing, and others need to start doing and reinforces them e.g. "Everyone on the back tables are wiping down their whiteboards"*
> - o *Specific: " Jasper is sitting up straight" NOT "Jasper is sitting nicely"*
> - o *Measured: teacher shows appreciation for positive behaviour but does not treat it as an accomplishment when it is not e.g. "Front row have their pens moving, thank you" NOT "Fantastic ! It is great to see the front row with their pens moving"*
> - o *Genuine: teacher's tone is natural and not forced*
> - o *Clear and confident: teacher's voice is authoritative, upbeat and can be heard from anywhere in the classroom, but it does not sound like shouting*

> Mentor support
>
> There is more help to support mentors in using Steplab in Instructional Coaching on the Steplab Coaching Simulator (guided tour).

Mentor selects next step

What
Mentor decides focus for next round of instructional coaching – setting a new step or continuing to work on current step

When
Mentor uses observations from the 10 – 15 minutes coaching observation, to choose step

How
Data gathering, use professional judgement, use Steplab to support narrowing down the step

Underlying features of 'selects next step'

Appropriate: The mentor selects a step which is targets a small area for development. This may involve more practise on the current target area or moving onto a new step. The level of challenge needs to manageable, whilst moving on the ECT's practice.

Aligned: The mentor considers the broad area of practice that the ECT has currently been working on, and uses step selector in Steplab.

Builds on prior knowledge: The mentor considers the ECT's prior knowledge or current area of self-study when selecting a step.

Task

Watch the video of Tania explaining how she chose a step

Questions to consider
How did Tania use Steplab to ensure that the step was bite sized?
Why did she choose to focus on behaviour?

Mentor support

There is more help to support mentors in the Mentoring and Coaching Development Area on Steplab.

Modules 3 and 4: Observe and set steps

Mentor gives praise and feedback on previous step

What
Mentor describes how the ECT has met or not met the step

When
After the observation, at the start of the feedback section of the instructional coaching cycle

How
Mentor uses the observation notes from 10 – 15 min drop in

Underlying features of 'gives praise and feedback on previous step'

Action focused: The mentor shares which of the success criteria for the previous step have been met and what the ECT did to meet the success criteria.

Linked to impact: The mentor links the ECT actions to the impact these actions have on pupils, to create a link between what we do to improve practice and why we do it.

Builds motivation and self-efficacy: The mentor celebrates the ECTs successes and the impact that these are having on pupils. This helps to develop ECTs belief that they can succeed in the classroom.

Task
Listen to the praise that Tania gives Vicky

Questions to consider
What examples of the underlying features are there in this praise?

Audio Transcript

Your step for last week was "Standing where you can see both into and out of the room, greet pupils and make it obvious" you are checking their behaviour as they enter by exaggerating your scanning.

The success criteria for this step is Visible, Positive, Frequent, Comprehensive and Exaggerated.

So Visible. You stood in the doorway, so you could see onto the corridor and also into the classroom. Positive you greeted the class as they entered you said 'Good morning year 8, come into the classroom, get out your equipment and get started on the Do Now on the board'. This set a positive tone with the class, with a clear instruction– well done.

Frequent – you looked into the classroom twice and this was effective as you used exaggerated movements, really craning your neck to show the pupils that you were checking that they were following instructions. You also were comprehensive using the exaggerated movements turning your head and looking hard to show that you were looking at the whole classroom. It was noticeable that after you did this exaggerated look into the classroom the noise level lowered, and a larger number of pupils engaged with the Do Now task. However, this needs to be more often to ensure you are managing both inside the classroom and corridor.

Overall, I think you have met this step – I'd like you to continue practising this week, ensuring that you look into the classroom more often using those really good exaggerated neck movements.

Task

Read the step, the success criteria and the mentor's notes from the observation Priska's lesson.

Script the praise you would give Priska.

Mentor's Notes

During the independent practice Priska walked round the classroom using exaggerated neck movements to scan the classroom.

She used phrases like 'I can see that the back row are using rulers to underline the key phrases, thank you', 'Fantastic Max has started to work – well done', 'the people on the corner table are using a mini whiteboard to plan out their paragraph. That's good thinking', 'I can see Sajal is working hard, and thinking carefully what to write'.   (note the pupil next to Sajal then started working)

When Priska circulated in the left-hand side of the classroom, several students started to focus and re-engage with the task. Noise levels dropped although there were more off task pupils on the right-hand side of the room.

Step

> **Behaviour Directing Attention**
>
> **Pre-emptively reinforce the positive actions you see pupils taking to encourage everyone to stay focused at key points of the lesson when you anticipate pupils may struggle**
>
> - *Seek and reinforce the positive: teacher looks for the positive behaviours soe of the pupils are doing and others need to start doing and reinforces them e.g. "Everyone on the back tables are wiping down their whiteboards"*
> - *Specific: "Jasper is sitting up straight "NOT "Jasper is sitting nicely"*
> - *Measured: teacher shows appreciation for positive behaviour but does not treat it as an accomplishment when it is not e.g. "Front row have their pens moving, thank you" NOT "Fantastic! It is great to see the front row with their pens moving*
> - *Genuine: teacher's tone is natural and not hard*
>   *Clear and confident: teacher's voice is authoritative, upbeat and can be heard from anywhere in the classroom, but it does not sound like shouting*

> **Mentor support**
>
> There is more help to support mentors in the Mentoring and Coaching Development Area on Steplab.
>
> *Module 5: praise progress*

Task

Use the step below to write a script for a model, which could be delivered to an ECT.
Remember to use the underlying features to help you to create an effective model.

Step

> **Assessing for formative purposes**
> **Give instructions to pupils explaining the steps they should take to answer the diagnostic question e.g. question goes up on the board, pupils have 30 seconds to choose their answer, when you countdown 3,2,1, all pupils hold up their fingers at the same time for the answer they believe to be correct.**
> - *Succinct: the instructions and questions are worded simply and clearly so pupils understand what they are being asked to do*
> - *Manageable and sequential: the steps are small enough for pupils to follow and they are ordered in the same way pupils would carry them out.*

> **Mentor support**
>
> There is more help to support mentors in the Mentoring and Coaching Development Area on Steplab.
>
> *Module 6: Feedback – Modelling and Module 11: Contextualisation.*

ECT practice and feedback cycle

ECT practice and feedback cycle

<u>What</u>
ECT scripts and then delivers this script, practising as if in front of a class. Mentor feeds back against success criteria. ECT repeats practice.

<u>When</u>
After the mentor has modelled the step

<u>How</u>
Practice is authentic, as if delivering to a class. If the step set is a planning task, then practice involves scripting.

Underlying features of 'practice and feedback cycle'

Specific: The mentor gives feedback and tells the ECT exactly what to do to close the gap between their practice and the model.

Actionable: The mentor feedback gives the ECT an action to enact.

Builds ECTs' mental models: The mentor feedback helps ECTs to develop a deep understanding of what they are doing and why they are doing it.

Responded to: The ECT must practice with adaptions from mentor feedback.

Task

Watch the video of the cycle of feedback and praise

Questions
How does Tania ensure the practice was authentic?
How was the feedback specific and actionable?
What scaffolding did Tania put into the cycle to support Vicky's practice?

Mentor support

There is more help to support mentors in the Mentoring and Coaching Development Area on Steplab.

Modules 7 and 8: practice and feedback.

Role B ECT chooses a script, with a common mistake. Read out script and receive feedback (do not reveal the mistake)

The person in role B can also come out of role and give feedback to person A based on the underlying features of practice and feedback

Mistake: ECT delivers the script really fast and sitting down	Mistake: ECT delivers the instructions out of sequence
I am going to display a multiple-choice question. I will give you 30 seconds to think, on your own in silence what answer you think is the correct one. After 30 seconds I will ask you to put up the number of fingers that indicates your answer and put your hand on your chest. I will then say, '3 2 1 show me' and you will all raise your hands showing me your fingers at the same time.	I am going to display a multiple-choice question. I will give you 30 seconds to think. After 30 seconds I will ask you to put up the number of fingers that indicates your answer and put your hand on your chest. I will then say, '3 2 1 show me' and you will all raise your hands showing me your fingers at the same time. When you are thinking of which answer, you will think in silence and individually
Mistake: ECT script uses complicated words I am going to display a multiple-choice question. I will give you 30 seconds to think, then you contemplate your what answer you think is the correct one. After 30 seconds I will ask you to indicate the number of fingers that corresponds to your answer and put your hand on your chest. I will then say, '3 2 1 show me' and you will all raise your hands showing me your fingers at the same time.	**Mistake: Includes extra information** I am going to display a multiple-choice question. This has 4 answers of which 3 are common misconceptions and one is the correct answer. I will give you 30 seconds to think, on your own in silence what answer you think is the correct one. It's really important, you think on your own so I can get a clear idea of everyone's progress this lesson. After 30 seconds I will ask you to put up the number of fingers that indicates your answer and put your hand on your chest. I will then say, '3 2 1 show me' and you will all raise your hands showing me your fingers at the same time.

<u>**Step**</u>

Assessing for formative purposes
Give instructions to pupils explaining the steps they should take to answer the diagnostic question e.g. question goes up on the board, pupils have 30 seconds to choose their answer, when you countdown 3,2,1, all pupils hold up their fingers at the same time for the answer they believe to be correct.
1. *Succinct: the instructions and questions are worded simply and clearly so pupils understand what they are being asked to do*
2. *Manageable and sequential: the steps are small enough for pupils to follow and they are ordered in the same way pupils would carry them out.*

ECT implements step in classroom

What
ECT implements the step that they have practised back in their own classroom

When
After the coaching session

How
With pupils present

> **Underlying features of 'implementing step'**
>
> **Action plan:** The mentor decides with ECT which class/subject this step will be practised with, and when in the week. Identify and problem solve to overcome any barriers.
>
> **Arrange a drop in:** The mentor agrees with ECT when they will drop in and observe the ECT implementing the step. The ECT should have time to implement the step before the drop in.

Check for Understanding

Which of the following are features of instructional coaching?

a) Roleplay
b) Bite-sized steps for improvement
c) Open questioning
d) A regular routine
e) Low-stakes practice & feedback

Which (if any) of the following statements are true?

a) The ECT should always decide the focus of the coaching
b) ECTs should always work on a new step each week
c) Instructional coaching is the most important part of this programme

Reflection

> How does the instructional coaching cycle close the knowing doing gap?
> How can you make your ECT practice authentic?
> What are you confident about? What are you not confident about

Section 5: Task-based instructional coaching

Example of types of models

Performance-based models could include actions and techniques such as:
> Giving clear instructions
> Delivering precise praise
> Explanation of a concept
> Non-verbal cues

Task-based models could include exposing an expert's decision-making processes in activities such as:
> Writing lesson objectives
> Creating a 'do now' or starter activity
> Scripting a series of questions to check for understanding
> Creating seating plans

Case study 2

Arjan is an ECT in his second term. He has worked hard and made progress in the Behaviour strand and classroom routines are fairly embedded in his lessons. Arjan has been working on identifying key learning, though the first few modules of the Instruction strand. An element that he really needs to work on is checking that pupils have learnt the key concepts in his lessons.

Step

> **Instruction – Identifying key learning conten**t
> **Use an exit ticket that targets the important knowledge, skills and concepts pupils need to take away from the lesson**
> a. *Focussed: the exit ticket checks the important knowledge skills and concepts pupils need to take away from the lesson*
> b. *Brief: Question on the exit task calls for brief response so it can be completed quickly*
> c. *Efficient the format of answers to the exit task allows for them to be checked quickly by the teacher*

Mentor and agrees and models the next step

Underlying features of 'agrees and models the next step'

Focuses attention: The mentor exemplifies the success criteria through their model and ensures their model does not contain unnecessary information which may distract an ECT.

Contextualised: The mentor reflects on the success criteria for a step look like in an ECT's phase, subject or setting and tailors their model accordingly.

Authentic: The mentor delivers their model as though delivering to the class, without 'breaking out of role'.

Build ECTs mental models: The mentor supports the ECT to develop mental models through making their thinking visible, and through making explicit links between theory and the practice being demonstrated

Task
Listen to the audio clip of Jess modelling to Arjan, planning an exit task.

Question
How does the model display the underlying features?

Instruction – Identifying key learning content
Use an exit ticket that targets the important knowledge, skills and concepts pupils need to take away from the lesson
- o *Focussed: the exit ticket checks the important knowledge skills and concepts pupils need to take away from the lesson*
- o *Brief: Question on the exit task calls for brief response so it can be completed quickly*
- o *Efficient the format of answers to the exit task allows for them to be checked quickly by the teacher*

The step I am setting you this week is: *Use an exit task that targets the important knowledge skills and concepts pupils need to take away. from the lesson.*

The success criteria for the step are:

That it is focussed. The exit task that targets the important knowledge skills and concepts pupils need to take away from the lesson.

That it is brief. Questions need to be answered quickly and completed quickly.

That it is efficient. The format of answers of the exit task allows for them to be scanned and checked quickly by the teacher.

The lesson I am going to model planning for is the lesson that I did my drop in with when you were teaching year 8 last Tuesday.

The objective of the lesson is to calculate percentage increase or decrease using a decimal multiplier. So, what essential content do I want to check that my pupils can do.

So, I need to think of a typical question that I would like my pupils to be able to do by the end of the lesson I think that a typical question that I would like pupils to do by the end of the lesson is decrease £280 by 3%.

Hmmm, but I also need to check that my pupils are using the correct method the decimal multiplier method, so I need to be able to see the working. So, I will plan to get pupils to do the exit question on mini whiteboards and use Show me, and I will remind the pupils to show full workings, I will need to be able to scan my pupils quickly and check that their responses are correct so I am going to write out a model answer so that I know what to look for when I am looking at my pupils' answers .

I am expecting to see 0.97 x 280 = 271.6   which is £271.60.

Let's have a look at the key features, the success criteria.

My exit task is focussed – in that it's checking the most important content by choosing a typical question that I would expect my pupils would be able to complete

It's brief – it can answered quickly.

By having a model answer ready it means I am able to scan the pupils quickly and efficiently to check that they are answering the question correctly.

Now I would like you to script an exit question for your next lesson. Your next lesson is on solving reverse percentage problems. I will give 5 minutes to script a question. Remember:

1. It needs check key learning

2. It needs to be brief and it needs to be efficient

Task

Write a script for a model which can be delivered to an ECT. Remember the underlying features to create an effective model. The step for this model is below. The lesson objectives are on the next page.

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Underlying features of 'agrees and models the next step'

Focuses attention: The mentor exemplifies the success criteria through their model and ensures their model does not contain unnecessary information which may distract an ECT.

Contextualised: The mentor reflects on the success criteria for a step look like in an ECT's phase, subject or setting and tailors their model accordingly.

Authentic: The mentor delivers their model as though delivering to the class, without 'breaking out of role'.

Build ECTs mental models: The mentor supports the ECT to develop mental models through making their thinking visible, and through making explicit links between theory and the practice being demonstrated

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Assessing for formative purposes - Identify critical knowledge, skills and concepts in a lesson and source or plan a set of diagnostic questions that are focussed on testing pupils understanding of these, making sure there is one right answer, and the other answers are plausible

- o *Clear and concise: the content of the diagnostic question is succinct unambiguous and worded in a way in which pupils understand, given their prior knowledge*
- o *Important: the diagnostic question highlights the critical knowledge skill or concept the pupil needs to lean*
- o *Focussed: the diagnostic question checks a pupil's understanding of a single skill or concept rather than multiple concepts at once*
- o *Swift: the diagnostic question should be delivered in a way in which pupils can answer quickly allows for them to be checked quickly by the teacher*

Lesson Objectives for task

Choose the subject or phase that is nearest to your ECT's. For your choice of subject or phase you will find the lesson objective of a lesson you would have dropped into, and an objective for an upcoming lesson. You will script a model of how to plan a diagnostic question for the lesson you have seen and will ask the ECT to plan a diagnostic question for the upcoming lesson.

For example, if you choose English imagine you have just seen your ECT teach the lesson:

To understand the structure of a Shakespearean comedy

You will model how to script a diagnostic question for that that lesson objective. Imagine you will be preparing your ECT to create a script a diagnostic question for their next lesson:

To explore the theme patriarchy through the conflict between Hermia and Egeus

Lesson Objectives

Early Years

To identify key features of my appearance

To identify differences between myself and others appearance

Primary Years 1 and 2

To describe materials and their properties e.g. transparent, absorbent, flexible

To identify why materials are used for certain purposes

Primary Years 3 and 4

To understand the rules associated with adding the suffix -ed

To investigate suffixes – the rules associated with plurals

Primary Year 5 and 6

Compare pairs of fractions with the same denominator, and then compare pairs of fractions with different denominators.

Order a set of fractions with denominators that are multiples or factors of each other and place them in order on a number line.

Secondary

Mathematics

To calculate the volume of a cuboid

The calculate the surface area of a cuboid

History

To learn how Anglo-Saxon society was structured, and how this changed life for men and women.

To understand why there were multiple Anglo-Saxon kingdoms

Geography

To understand about the purpose and types of sustainable food resources

To understand how to manage and sustain our water supply

English

To understand the structure of a Shakespearean comedy

To explore the theme of patriarchy through the conflict between Hermia and Egeus

Science

Describe diffusion in terms of particles and high or low concentration

Describe changes of state that occur from solid to liquid and liquid to gas in terms of particles

ECT practice and feedback

Underlying features of practice and feedback cycle'
Specific: The mentor feedback tells the ECT exactly what to do to close the gap between their practice and the model.

Actionable: The mentor feedback gives the ECT an action to enact.

Builds ECTs mental models: The mentor feedback helps ECTs to develop a deep understanding of what they are doing and why they are doing it.

Responded to: The ECT must practice with adaptions from mentor feedback.

Arjan's Exit Ticket

Arjan's Script for his exit ticket

The price of a coat has been reduced by 10% in a sale. It is now £72.

Ben calculates the original price as:

10% of £72 = £7.20

£72 + £7.20 = £97.20

What mistake has he made?

(On mini whiteboards)

Step

> **Instruction – Identifying key learning content**
> **Use an exit ticket that targets the important knowledge, skills and concepts pupils need to take away from the lesson**
> - *Focussed: the exit ticket checks the important knowledge skills and concepts pupils need to take away from the lesson*
> - *Brief: Question on the exit task calls for brief response so it can be completed quickly*
> - *Efficient the format of answers to the exit task allows for them to be checked quickly by the teacher*

Task

Find the script from the ECT practice that best corresponds to your phase or subject.

Discuss in your pairs what feedback would you give your ECT to action in the next round of practise

Early Years

To identify differences between myself and others' appearance

Diagnostic question script

Look at these two pictures of children. How many differences between them can you see?

Primary Years 1 and 2

To identify why materials are used for certain purposes

Diagnostic question script

Which material can be recycled in the school recycling bins?

    A) Paper

    B) Wood

    C) Plastic

Primary Years 3 and 4

To investigate suffixes – the rules associated with plurals

Diagnostic question script

The meaning of plural is

    A) Only 1

    B) two or 3

    C) more than 1

Primary Year 5 and 6

Order a set of fractions with denominators that are multiples or factors of each other and place them in order on a number line.

Diagnostic question script
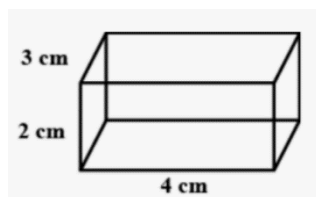
$$\frac{3}{4} =$$

A) $\frac{3}{8}$

B) $\frac{6}{4}$

C) $\frac{5}{6}$

D) $\frac{6}{8}$

Mathematics

The calculate the surface area of a cuboid

Diagnostic question script

Calculate the area of face the plan view of this cuboid. Is it

A) 12cm ^{2}

B) 6m ^{2}

C) 8 cm ^{2}

D) 9m ^{2}

History

Diagnostic Question script

To understand why there were multiple Anglo-Saxon kingdoms

A) William of Normandy

B) Venerable Bede

 C) Beowulf

D) Alfred the Great

Geography

To understand how to manage and sustain our water supply

Diagnostic question script

Complete the sentence. Electricity can be generated by water through

A) Turbines

 B) Panels attached to rooves

 C) Hydro-electric dams

D) Wave power

English

To explore the theme patriarchy through the conflict between Hermia and Egeus

Diagnostic Question script

Why did Hermia not want to marry Demetrius?
 A) Because Egeus told her to

 B) Hermia did not want to marry anyone

C) She wanted to become a nun

D) Hermia wanted to marry Lysander

Science

To describe changes of state that occur from solid to liquid and liquid to gas in terms of particles

Diagnostic question script

What happens to energy when a substance changes state

   A)   *The energy is released as heat*

   B) *The energy becomes chemical energy*

   C) *There will be no energy change*

   D) *The particles absorb the energy*

Key Takeaways

Section 6: Your Next Steps

> Access further support and guidance on each part of the instructional coaching cycle in the Mentoring and Coaching Development Area on Steplab. You will find modules on:
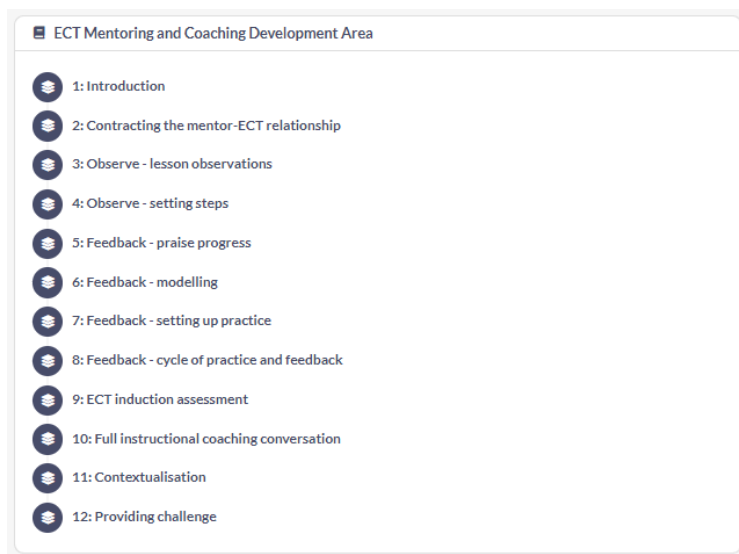
> Check your timetable has dedicated time for coaching and mentoring allocated

> Familiarise yourself with Steplab – use the Steplab Coaching Simulator

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Appendices

Appendix 1: Mentor support

The Mentor Induction is the start of the training and support for mentors. The induction is split into the following sessions.

The induction is the start of a longer journey of mentor development on the programme, building on your expertise as a teacher and mentor.

Title	Platform	Time
Orientation	Steplab	45 – 60 minutes
Mentor Conference 1 and 2	Face-to-face	1 day
Mentor Clinics 1 and 2	Online	90 mins twilight
Coaching for mentors (optional)	Face-to-Face or Zoom	60 minutes
Mentoring and Coaching Development Area	Steplab	Choice of short modules

Support with…	From…	How…	Where
Getting started with mentoring, including instructional coaching	> Ambition Institute > Your delivery partner	> Mentor conference 1 > Mentoring and Coaching Development Area	> Face-to-face – now! > Steplab (online, asynchronous)
Building knowledge of instructional coaching techniques		> Mentor clinics	> Zoom (Online, synchronous)
Personalised, one-to-one developmental feedback on instructional coaching	> An expert coach, assigned through your delivery partner	> Coaching for mentors (two in year 1, one in year 2)	> Online (Zoom) or face-to-face
Early Career Framework content for teachers	> Ambition Institute	> Teacher self-study content	> Steplab (online, asynchronous)
In school challenges, including logistics	> Your school > Your delivery partner	> Induction tutor	
Technical difficulties, including with Steplab	> Your school > Your delivery partner > Steplab	> Induction tutor > Steplab	

Support for mentors

Below is a table that shows the support for mentors across the programme.

	Input	Time	Mode of delivery	Content
Year 1	Mentor Conference 1	1 day	Face-to-face	Introduction to the ECF Introduction to the Early Career Teachers Programme Introduction to instructional coaching Performance- based and task-based steps
	Clinic 1: Modelling	1.5 hrs	Session on Zoom (90 minutes)	Introduction to contextualisation Option A: Planning a model Option B: Sharing a model Option C: Providing feedback to support re-practice
	Coaching for mentors	1.5 hrs	Tailored support from an experienced instructional coach over Zoom or in person (1 hour) + online self-study (30 mins)	A one-to-one conversation and instructional coaching session
	Mentor Conference 2	1 day	Face-to-face	Year 2 on the programme Developing teacher expertise Adapting the coaching model to increase challenge Adapting the coaching model: in practice

Year 2	Clinic 2: Providing Challenge	1.5 hrs	Session on Zoom (90 minutes)	Introduction to increasing challenge for your ECT Option A: Analysing the gap between current and target practice Option B: Selecting challenging steps Option C: Layering steps
	Coaching for mentors	1.5 hrs	Tailored support from an experienced instructional coach over Zoom (1 hour) + online self-study (30 mins)	> A one-to-one conversation and instructional coaching session
Online for both years	Mentoring and Coaching Development Area		Online content on Steplab Modules last 15-30 mins each	1) Introduction 2) Contracting the mentor-ECT relationship 3) Observe - lesson observations 4) Observe- setting steps 5) Feedback - praise progress 6) Feedback - modelling 7) Feedback - setting up practice 8) Feedback- cycle of practice and feedback 9) ECT induction assessment 10) Full instructional coaching conversation 11) Contextualisation 12) Providing challenge

Appendix 2: Sequencing of ECT programme content, organisation of strands

Behaviour strand

Week	Study and coaching (weekly)	Training
1	**B1 Strand fundamentals and re-contracting** Introduces foundational elements of behaviour and supports teachers and mentors to set up effective ways of working.	**Kick off conference** Provides teachers with an overview of the science of learning and habits of planning. **Programme induction** Explains the programme and the ECF, and introduces teachers to aspects of self-regulation.
2	**B2 Routines** Explores effective routines, the role of classroom environment and its connection learning.	**Clinic 1***
3	**B3 Instructions** Shares role of high-quality instructions and how to plan and reinforce them.	
4	**B4 Directing attention** Examines monitoring and reinforcing expectations with praise, voice and movement(s).	
5	**B5 Low-level disruption** Focuses on managing low-level disruption to learning and how to maintain a positive environment.	
6	**B6 Consistency** Explores how teacher consistency builds a positive learning environment.	**Clinic 2***
7	**B7 Positive learning environment** Focuses on the classroom culture required for pupils to learn effectively	
8	**B8 Making learning manageable** Shares the link between success, behaviour and grain size.	
9	**B9 Challenge** Explores the role challenge plays in pupil behaviour.	
10	**B10 Independent practice** Considers the link between successful	

	independent practice and expectations, routines and feedback.	
11	**B11 Pairs and groups** Focuses on how to make paired and group work successful through expectations, routines and culture.	
12	**B12 Upholding high expectations** Examines how to continually reinforce established foundations.	

Instruction strand

Week	Study and coaching (weekly)	Training
1	**I1 Strand fundamentals and re-contracting** Introduces foundational elements of instruction and supports teachers and mentors to set up effective ways of working.	**Clinic 3***
2	**I2 Identifying learning content** Focuses on identifying essential concepts and considering their role in planning and assessment.	
3	**I3 Instruction for memory** Considers how teaching can support lasting change in pupils.	
4	**I4 Prior knowledge** Examines the implications prior knowledge and misconceptions have on instruction.	
5	**I5 Teacher exposition** Explores the challenge(s) when introducing new information and how modelling, explanations and scaffolds can help.	
6	**I6 Adapting teaching** Focuses on how effective instruction requires adapting teaching to support and challenge all pupils.	
7	**I7 Practice, challenge and success** Examines what constitutes purposeful practice and how practice is an integral part of effective teaching.	**Clinic 4***
8	**I8 Explicit teaching** Explores explicit teaching across a lesson/unit of	

	learning.	
9	**I9 Scaffolding** Focuses on how scaffolds and worked examples can help pupils and how to gradually remove them.	
10	**I10 Questioning** Looks at how effective questions can deepen and extend pupil thinking.	
11	**I11 Classroom talk** Explores how classroom talk can help to develop pupils' mental models.	
12	**I12 Feedback** Examines the link between teacher questions, feedback for pupils and responsive instruction.	

Subject strand

Week	Study and coaching (weekly)	Training
1	**S1 Strand fundamentals and re-contracting** Introduces foundational elements of subject and supports teachers and mentors to set up effective ways of working.	**Clinic 5***
2	**S2 Planning backwards from learning goals** Focuses on the importance of subject excellence and starting with what teachers want pupils to learn.	
3	**S3 Types of knowledge** Looks at the differing nature of subjects, the importance of mental models, knowledge and identifying core knowledge within subjects.	
4	**S4 Gaps and misconceptions** Explores the need to identify and respond to gaps in pupil knowledge and pupil misconceptions.	
5	**S5 Acquisition before application** Explores the role secure relevant knowledge can play prior to application and how to build and check for high success rates.	
6	**S6 Promoting deep learning** Focuses on ensuring deep, hard thinking about key ideas that develops pupil mental models and flexible knowledge.	

7	**S7 Developing pupils' literacy** Explores the varying nature of literacy across and within subjects/phases and the important role of vocabulary, comprehension and oral literacy.	**Clinic 6***
8	**S8 Sharing academic expectations** Examines the links between challenging academic expectations, purposeful planning and breaking down and modelling content.	
9	**S9 Assessing for formative purposes** Examines the link between learning goals, formative and summative assessments.	
10	**S10 Examining pupils' responses** Looks at drawing inferences, identifying misconceptions and getting pupils to elaborate as part of formative assessments.	
11	**S11 Adapting lessons to meet pupil needs** Explores the ways formative assessments can provide inferences to adapt teaching to meet the needs of pupils.	
12	**S12 Feedback** Focuses on aspects of effective feedback so that pupils can put it into action to improve their understanding.	

Below is the suggested order for clinics, however, Delivery Partners may choose to re-order these to best suit the needs of their ECTs.

Content covered across clinics:

> Maintaining high expectations: addressing the typical teaching problem of how teachers can prevent and respond to low-level disruption to create a positive, predictable and safe learning environment

> Thinking hard: addressing the typical teaching problem of how teachers can support all pupils to think hard during whole class, paired and group discussions

> Effective feedback: addressing the typical teaching problem of how teachers can give timely and effective feedback that supports pupils progress and is considerate of workload

> Working with others: addressing the typical teaching problem of how teachers can hold effective conversations with a range of people to support pupil wellbeing-motivation and progress

> Literacy: addressing the typical teaching problem of how all teachers can meaningfully support all pupils to develop high levels of literacy

> Implementation: addressing the typical teaching problem of how teachers can make effective, long-lasting changes to their teaching practice

Appendix 3: Further examples of evidence summaries from study modules

Module I4: Prior Knowledge

Teaching challenge

Ms McShane finds it hard to ensure all pupils understand the new ideas she teaches. She has noticed that many have gaps in prior knowledge, even if they have covered related topics in previous years, or the topic is one she taught them herself. Others struggle to link new ideas to their existing knowledge. How can she check and build upon pupil prior knowledge to help them understand new ideas?

Key idea

Pupil learning is more successful if teachers check, activate and build on pupil prior knowledge.

Prior knowledge helps us make sense of new material

"The most important single factor influencing learning is what the learner knows already" (Ausubel, 1968 in Simonsmeier et al., 2018). This is because pupils "come to understand new ideas by relating them to old ideas" (Willingham, 2009). Existing knowledge (stored in long-term memory) is what makes new ideas meaningful.

We can illustrate this by looking at sentences we might ask pupils to understand. As you read the sentences below, consider what pupils need to know to make sense of each one:

---

1. To convert a decimal to a fraction, use place value.

---

2. Two households, both alike in dignity,

   In fair Verona, where we lay our scene,

   From ancient grudge break to new mutiny,

   Where civil blood makes civil hands unclean.

---

3. Some say that Henry only made the break with Rome because the Pope would not let him have a divorce (Byrom et al., 1997).

For example, if pupils don't know who Henry was, who the Pope was and why a divorce mattered to him, the sentence – and the topic – will make little sense.

Teachers can help pupils to learn by linking new ideas to prior knowledge. This makes it easier to process those new ideas. For example, if pupils have studied stories about adventures previously, they know what to expect in encountering a new adventure story. This then makes it easier to remember them, by connecting the new ideas to existing knowledge. The greater pupils' prior knowledge, the easier learning becomes for them: "it is easier to learn new information… [and] to solve new problems when one has a rich, well-connected body of knowledge and strong ties and connections" (Rosenshine, 2012). Well-organised prior knowledge makes it even easier for pupils to learn new ideas.

Weak prior knowledge can cause pupils to misunderstand

For prior knowledge to help pupils, it needs to be complete and accurate: if pupil prior knowledge is weak, pupils can misunderstand new material. If pupils hold misconceptions or lack correct knowledge, they can form misconceptions. For example, knowing that the surface of the Earth appears flat may lead pupils to conclude that the Earth is a disc (Simonsmeier et al., 2018). If Ms McShane tries to introduce a new idea which does not fit into a pupil's current

mental model – particularly if the pupil's mental model is inaccurate – that pupil may misunderstand or reject this idea (Chi, 2009).

Activating prior knowledge can help pupils to succeed

An effective starting point for teachers is to identify what pupils already know, and any gaps in their knowledge. Having done so, Ms McShane can seek to introduce new material in small enough chunks to be comprehensible, and to make explicit links between prior knowledge and the new ideas. Where pupils have missing or incomplete knowledge, adding new concepts will help pupils to develop more sophisticated mental models. However, where Ms McShane's pupils already hold beliefs which happen to be wrong, she must focus on changing old concepts (Chi, 2009). When introducing new material, Ms McShane needs to develop pupils' mental models by taking small steps and posing lots of questions which explicitly link pupil prior knowledge with the concepts being taught.

Nuances and caveats

If pupils have lots of prior knowledge and are reminded of this, it can prevent them from looking for new or better problem solutions (Simonsmeier et al., 2018) – like a driver going into autopilot: they stop thinking hard and therefore don't develop their mental model.

Key takeaways

Ms McShane can begin to improve her instruction by understanding that:

- *Drawing on existing mental models helps us to learn new information and solve new problems more effectively.*
- *Weak prior knowledge can lead to misconceptions. Ms McShane must make the effort to diagnose what her pupils do know, don't know and misunderstand.*
- *Ms McShane can build on this by reviewing pupil prior knowledge and introducing new material in steps while asking lots of questions.*
- *By carefully activating pupil prior knowledge and challenging pupils' incorrect beliefs, she can support pupils to develop accurate mental models.*

Further reading

Simonsmeier, B. A., Flaig, M., Deiglmayr, A., Schalk, L., & Schneider, M. (2018). Domain-Specific Prior Knowledge and Learning: A Meta-Analysis Prior Knowledge and Learning. bit.ly/ecf-sim

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Module S3: Types of knowledge

Teaching challenge

Mr Jones has reviewed the curriculum for his next topic: he is confident about the learning goals, has refreshed his knowledge of the key ideas and has talked to colleagues about how pupils can best learn them. However, the

amount and range of content appears huge. He is unsure how he will find time to cover everything in depth. What should he prioritise teaching?

Key idea

Teachers can develop pupils' mental models by identifying and ensuring they understand and retain critical subject content.

Mental models

Mr Jones is using guidance from the school curriculum, colleagues and curricular resources to build up an increasingly sophisticated mental model of the subject. A mental model is a structured body of knowledge. It is a collection of concepts, knowledge, skills and principles which fit together to provide an overall understanding of an idea (Sweller et al., 1998). For example, most adults have a mental model of a restaurant: this means they know what to do (more-or-less) in a new restaurant or an unfamiliar country (Sweller et al., 1998). Similarly, Mr Jones has a mental model of the topics he is teaching: both the content that he is going to teach about and how to teach it in a way that links to a subject – what makes this content historical or mathematical? He knows the key ideas, the underlying principles and how they fit together. For example, he knows the key events of the English Civil War, how they are linked and different ways in which they can be interpreted.

To achieve curricular goals, he must use his subject mental model to motivate pupils to develop increasingly complex mental models of the subject. The more complex a pupil's mental model, the better they can apply it to skills such as answering questions, solving problems or learning new ideas (Willingham, 2009). For example, a pupil whose mental model did not include the word "monarch", or the concept of "Parliament" would struggle to make sense of a text describing the causes of the Civil War. In contrast, a pupil with a complex mental model would move from attempting to understand the story of the Civil War to using historical reasoning as to which cause was most significant.

The importance of knowledge

When pupils learn, they gain – and retain – deeper and more sophisticated knowledge in their mental models. Developing pupil knowledge is important as the more pupils know (and the better organised their knowledge), the better they can understand a new idea (by connecting it to their existing knowledge) and the better they can solve problems (by applying their knowledge). Their existing knowledge reduces the burden on pupils' working memory (Deans for Impact, 2015; Willingham, 2006).

Therefore, if Mr Jones is to help pupils achieve ambitious learning goals, his priority is teaching pupils knowledge in order to also develop their skills (Willingham 2009). He should focus on what he wants his pupils to know and be able to do. For example, a wide vocabulary will help pupils understand unfamiliar texts, while knowledge of long multiplication gives pupils the capability to solve previously unseen maths problems.

To develop pupils' mental models, Mr Jones must first identify their constituent parts: exactly what he wants pupils to know. This helps him to reduce his sophisticated knowledge into comprehensible building blocks for pupils: doing so reduces the risk of overestimating pupils' knowledge and underestimating how hard they will find new ideas (Wiliam, 2013). If he wants pupils to explain the causes of the Civil War, he can identify what he wants them to know about each cause, for example: "to know that King Charles I believed he ruled by Divine Right." If he wants pupils to complete long multiplication, he can identify that he wants them to know that a number can be partitioned into tens and hundreds.

Prioritising subject content

Having identified everything he wants pupils to know about a topic, Mr Jones is left with a problem: there is a huge amount of relevant and interesting knowledge. He can address this by identifying the essential concepts, knowledge, skills and principles – the 'critical' subject content that pupils need to remember in order to have a complete mental model (Counsell, 2018; Sweller et al., 1998). Critical content is what he hopes pupils will recall in one, three, or perhaps even ten years: Iago's jealousy, the causes of the English Civil War and how to design an experiment.

Mr Jones could also identify how he wants his pupils to organise what they remember. For example, concepts are organising ideas that allow us to categorise knowledge (Chi, 2009). Critical concepts, then, are important subject ideas Mr Jones will want to return to many times to help pupils develop organised mental models of his subject. Therefore, he can introduce the idea of the tragic form in English literature and teach Othello as an example of this. In science, he could teach the scientific method in biology, chemistry and physics and use experiments as examples of these. This content also will influence how he sequences what he teaches. He can plan how a new idea can be linked to previous and future learning (Wiliam, 2013) by asking: which content is foundational and why? Where relevant, he might also identify subject principles (Chi, 2009). Subject principles are rules or theorems that serve to apply across a whole field. They can be used to transcend specific examples. For example, in physics he might teach the Law of Conservation of Energy or Newton's Second Law (F=MA) and highlight when these principles are returned to, to help pupils organise their mental models. In an Early Years setting, teachers might return to the principle of synthetic phonics at different times as they teach reading.

The National Curriculum also calls for a 'broad and balanced curriculum'. So, in addition to 'critical' content, Mr Jones should select 'supporting' content: further examples, stories and illustrations that he won't necessarily expect his pupils to remember, but which will bring his teaching to life and support pupils to remember and understand the critical content. It is particularly effective if these examples explicitly link to pupils' knowledge and experiences. This supporting content helps pupils make sense of critical content: Othello wouldn't make sense without all its characters; getting the equipment wrong means an experiment will not work. So, while Mr Jones is teaching these topics, he wants pupils to know, understand and recall supporting content as well as the critical content. However, after teaching the topic, he will accept that he does not need to revisit supporting content (since not every item of information can be recalled and his time is limited); but he will want to ensure critical content is revisited to strengthen it.

Nuances and caveats

Developing pupils' knowledge does not just mean teaching isolated facts: mental models are organised collections of concepts, knowledge, skills and principles.
While it is important that supporting content brings critical content to life and makes it meaningful, teachers need to be careful that it does not distract from pupils remembering critical content.

Key Takeaways

Mr Jones can help students to develop their mental models and think more effectively about his subject by:

- *Focusing on developing pupil knowledge in order to ultimately develop pupil capabilities and understanding.*
- *Developing his mental model using available resources and reflecting on what this implies in terms of the important knowledge he wants to teach.*
- *Prioritising types of knowledge and identifying which is critical subject content – concepts, knowledge, skills and principles – that he wants pupils to retain, while teaching enough supporting content to give pupils access to a broad and balanced curriculum.*

Further reading

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