Module 3, week 3

ECT Mentor session

Module 3: Developing quality pedagogy

Week 3: Introducing new material in steps using exposition and questioning

Session Elements

discussion with mentor

collaborative planning

analyse artefacts

sharing of practice

observe a colleague

Learning Intentions for this session

Your ECT will learn how to:

Plan effective lessons, by:

4d. providing sufficient opportunity for pupils to consolidate and practise applying new knowledge and skills

Make good use of expositions, by:

4f. starting expositions at the point of current pupil understanding

4g. combining a verbal explanation with a relevant graphical representation of the same concept or process, where appropriate

4h. using concrete representation of abstract ideas (e.g. making use of analogies, metaphors, examples and non-examples)

Stimulate pupil thinking and check for understanding by:

4m. including a range of types of questions in class discussions to extend and challenge pupils (e.g. by modelling new vocabulary or asking pupils to justify answers)

4n. providing appropriate wait time between question and response where more developed responses are required

Introduction

In their self-directed study session earlier this week, your mentee extended their knowledge of how to introduce new material in steps, making links to pupils' prior knowledge, with an emphasis on **expositions** (explanations). They also focused on using **questioning** for different purposes in order for pupils to secure knowledge and understanding. Your mentee also either created a lesson plan for the coming week or observed a colleague, where they carefully considered expositions and questioning when introducing new material to pupils.

The learning outcomes from their self-directed study were to learn that:

4.2 Effective teachers introduce new material in steps, explicitly linking new ideas to what has been previously studied and learned.

4.6 Questioning is an essential tool for teachers; questions can be used for many purposes, including to check pupils' prior knowledge, assess understanding and break down problems.

And to learn how to*:*

4g. Combine a verbal explanation with a relevant graphical representation of the same concept or process, where possible

4h. Use concrete representations of abstract ideas (e.g. making use of analogies, metaphors, examples and non-examples).

In this session, you will help your mentee build on this activity, focusing in more detail on its practical implications. You will assist them by reviewing the activity in their self-directed study – a choice of either independent planning or observing a colleague. Key goals for the session include helping them to understand a) how effective teachers introduce new ideas and b) that questioning is an essential tool for teachers.

Research and Practice Summary

Exposition and questioning - 'How books work' in Early Years

As an Early Years teacher, Jo needs to teach her pupils how written language works. This includes how books work. There is a lot of knowledge pupils need to acquire in this first step towards reading. For example, they need to know that books are held in a particular way, print has meaning and can be used for different purposes, there is a relationship between print and speech and there is a difference between letters and words.

Jo knows she cannot teach all of the concepts at once to her young pupils. What would you recommend she do?

You have seen that the gradual release of responsibility model can bring together key ideas about teaching and learning. This Research and Practice Summary explores two parts of this model: exposition, whereby teachers introduce new ideas; and checking understanding through questioning, which can help teachers decide how to move between different stages in the model.

Exposition refers to the process of explaining concepts, ideas and information with great clarity. It requires the teacher to have sound knowledge of the curriculum area and involves ensuring that pupils are able to understand new information in the context of their prior knowledge and understanding. Exposition is about more than simply telling pupils information. It also involves providing examples to illustrate and illuminate the material to be learned. Examples can include visual and conceptual models, application of rules and contextual information. Good exposition may also involve modelling. Exposition does not require pupils to make discoveries themselves: by moving from the general to the specific, it allows pupils to understand increasingly detailed explanations of the material to be learned and links those explanations to information presented previously as part of a general overview.

To help your pupils learn through more effective exposition, you should:

- plan what you are going to say and how you are going to model it to your pupils (e.g. by scripting it in your lesson plan)
- think about the visuals and examples you can use that will help your pupils connect this new learning with what they already know (e.g. by referring to characters they have met in favourite stories)
- be prepared to break down your expositions further for those pupils who may need it
- allow time also for pupils to practise: don't simply rely upon exposition

Jo already knows that she needs to break down the concepts related to how books work. How else might she benefit from the research on exposition?

When introducing abstract ideas, it is important often to use **concrete representations**. These might take the form of analogies, metaphors, examples and non-examples. Teachers often over-estimate their pupils' grasp of the abstract and then overlook the misconceptions that can arise. Numbers are abstract, as can be such concepts as the 'Church' (i.e. the institution), verbs, the past or 'science'.

To help you with your expositions of abstract ideas, you should:

- use manipulables (e.g. blocks and shapes)
- construct number lines and timelines
- use play and drama to 'act out' words and concepts
- when using graphic representation, make sure you are not introducing a new misconception (e.g. an image of a church building may not help pupils appreciate the idea of Church as an institution)

Repeat these approaches often: they are a form of scaffold, which can be gradually

removed when you assess that your pupils are ready.

In what 'concrete' ways might Jo choose to represent the concepts of how books and written language work?

To ensure that learning is effective and efficient, it is critical to regularly check pupils' understanding and use this information to adapt teaching. This can be done in many different ways, but questioning is a key tool. **Questioning** is the key method by which teachers find out what pupils already know, identify gaps in knowledge and understanding and scaffold the development of their understanding to enable them to close the gap between what they currently know and the learning goals. Questions serve a number of essential purposes for teachers. For example, they:

- provide the teacher with immediate feedback on pupils' understanding, which can then be used to modify the teaching
- prompt pupils to inspect their existing knowledge-- articulating and retrieving helps clarify and consolidate learning and improves the likelihood that it will be retained
- focus pupils on the key components of the learning sequence
- enable teachers and pupils to see progress over time
- model how experienced learners seek meaning, moving them towards greater independence

To help you use questioning to check your pupils' prior learning and to assess their understanding, you could:

- use multiple-choice questions to identify knowledge gaps and misconceptions during lessons (e.g. a good source of well-constructed multiple-choice questions can be past examination papers, if these are available in your phase and specialism)
- prompt pupils to elaborate when responding to questioning to check that a correct answer stems from secure understanding (e.g. 'tell me how you reached that answer', 'what tells you that this is the correct answer?')
- use 'hands-down' questioning when you pose a question to the whole class, give them thinking time, then select the pupils to speak

- combine ‘hands-down’ with ‘think-pair-share', where everyone thinks alone, then discusses with a partner, before the teacher selects the pupils to answer
- allow thinking time – often a little longer than feels naturally comfortable

Recording key questions in schemes of work also encourages teachers to identify what they want pupils to know and understand, to communicate this to pupils (sharing learning goals) and to find ways of checking these have been achieved in lessons. This, in turn, enables teachers to tailor their teaching to what pupils need to know.

Jo will certainly be asking lots of questions, to check her pupils' understanding and to help her break down the problems for them.

What did Jo do?

Jo decided to ‘chunk’ the knowledge and understanding of how written language in books works. She also chose to give the pupils repeated exposure to the steps, so that the knowledge would stick. To start, she selected just one focus: how to hold a book. She then went through these steps:

(1) Check what the pupils already know about holding a book. She observed her pupils with books, holding them, leafing through them, pretending to read them. She noted those pupils who frequently handled the books incorrectly and carried out the next steps with them.

(2) ‘I do it.’ Modelling: picking up the book and talking through how the book should be held. She thought ‘out loud’: I’m thinking about which way up this book goes. I need to hold it like this so that I can open the pages like this. The page I open are always on this side.

(3) ‘We do it together.’ Checking their understanding by simple true/false questioning: holding the book up the wrong way, do they notice? Am I holding the book the right way? To stop them merely guessing, she did ‘think, pair, share’ with them so all had to think about their answers.

(4) ‘You do it with/without my support’. The pupils now think they know how to hold a book, but can they remember how the next time she asks them? She checked how they could apply their knowledge from before, using the same book. Do you remember the book we looked at yesterday? Can you pick the book up and show me how to hold it so we can look at it together?

(5) ‘You do it with/without my support’ in a new context. She checked their application with different types of books: Can you hold the Big Book so we can read it together? Let’s look at this pop-up book together. It’s a bit different from other books we’ve seen, can you see how to hold it?

This approach worked well for Jo. It could work equally well in a range of other settings, for almost any new set of material. The most important elements were to assess her pupils’ prior knowledge (by observing them handling books informally) and to break the new learning into small steps (both in recognising the different elements to ‘How books work’, and in chunking down one element into yet smaller steps). The only concrete representation she needed was the book itself, but it is good practice always to ‘make real’ what your pupils might find abstract. All the while, at each stage, she checked understanding with simple questioning. Finally, she gradually released responsibility to her pupils, moving through stages of ‘I do it’ to ‘You do it’. This was how they practised and applied their new knowledge and gained accuracy and confidence.

Mentor Meeting Activities

Throughout the session, try to refer explicitly to the Learning Intentions and encourage your mentee to record key points in their Learning Log. Tailor your use of the Theory to Practice activities below in response to the Review and Plan section of this session.

Review and Plan 5 mins

Clarify the Learning Intentions for this session with your mentee.

At the start of this module, you looked at all of the ‘learn how to’ statements for Standards 4 and 5 and conducted a module audit with your mentee: in some areas they will already be confident and skilled; in others they will want more practice, and support from you and others. Look back at this audit now and use it to help decide how you and your mentee will make the most productive use of the suggested Theory to Practice activities below.

Theory to Practice 40 mins

1. Analyse artefacts

Your mentee wrote a lesson plan or took notes when observing a colleague to explore their understanding of how best to introduce new materials to their pupils.

To support your collective analysis of the lesson plan (or notes from the observation), you may use some of the questions below as a starting point.

- What effect did the introduction of new material in small steps have on the pupils' learning?
- Do you think teaching this way considers the limitations of working memory?
- Did you identify examples of concrete representation of abstract ideas?
- How does a verbal explanation and graphical representation of the same concept help to transform pupils' knowledge?
- How did it feel when questioning was a central component of the lesson?
- Did the questioning used promote deeper thinking and exploration?
- How was wait time between questioning and answering used to ensure thinking time was maximised?
- Were any barriers to learning removed through explicit planning and use of questioning?
- How was questioning used for different purposes: checking pupils' prior knowledge, assessing knowledge or breaking down problems?
- How was questioning used effectively to monitor progress at all stages in the lesson?

2. Sharing of practice

How will your mentee refine their practice following this discussion? In particular, focus on these two areas, which are likely to be the main areas for development.

To support this sharing of practice, there are some ideas already included below, but wherever possible you should draw on examples which are appropriate to your mentee's pupils' characteristics, the context of their classroom and the nature of the material that they are teaching.

Questioning to break down problems:

- ask pupils to repeat back to me what they have understood
- ask them to show me in their work what they have tried so far
- chunk my explanations and ask simple multiple-choice or true/false questions as I go
- use ‘hands up’ to find a student who is confident they have understood, then they can explain it to another
- use ‘think, pair, share’ and lots of thinking time to allow pairs to work through a problem, then check it with the whole class

Verbal, graphical and concrete representations:

- highlight abstract concepts in my curriculum plan
- discuss with colleagues the ways they have found to explain these to pupils
- use characters from favourite stories to ‘act out’ the concepts
- have graphical examples (e.g. a number line) on permanent display

3. Collaborative planning

Now, with your mentee, refine their lesson plan or write a fresh one. Bear in mind the best examples from their original plan, from the colleague they observed (if they did) and from the ideas you just shared. Remember, they are aiming to improve their practice in:

- introducing new material in small steps
- combining verbal and graphical explanations
- explaining abstract concepts in concrete terms
- questioning to assess understanding and break problems down

Next Steps 5 mins

Agree with your mentee how they will now put their learning from this week’s session(s) into practice in their teaching. Help your mentee to clarify:

1. the action(s) they will take and how these action(s) are expected to contribute to improving pupil learning
2. what success will ‘look like’ in relation to these action(s)

3. how they will evaluate their success in taking these action(s)

Note the date of your next mentor meeting, when you will check on your mentee's progress.